

1 IN THE UNITED STATES DISTRICT COURT
2 FOR THE EASTERN DISTRICT OF PENNSYLVANIA
3 Civil Action No. 96CV-5903

4 STEVEN R. ARCH, WILLIAM BARNES,)
5 CIARAN McNALLY, CATHERINE POTTS,)
6 NORMA RODWELLER, BARBARA SALZMAN,)
7 EDWARD J. SLIVAK and JOHN TEAGLE,)

8 Plaintiffs,) Deposition of:

9) Walter S.
10) Pritchard, Ph.D.

11 THE AMERICAN TOBACCO COMPANY,)
12 INC., et al.,)

13 Defendants.)

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1 A P P E A R A N C E S:

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15
16 ALSO PRESENT:
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1 I N D E X
2 WITNESS DIRECT CROSS REDIRECT RECROSS
3 WALTER S. PRITCHARD, Ph.D.
4 Mr. Maistros 5

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E X H I B I T S

9
10 NUMBER DESCRIPTION IDENTIFICATION
11 PLAINTIFFS':
12 1 - Diagnostic and Statistical Manual
13 of Mental Disorders. 179
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1 VIDEOGRAPHER: This is the
2 videotape deposition of Walter S. Pritchard, Ph.D.,
3 in the matter of Steven R. Arch, et al., Plaintiff,
4 versus the American Tobacco Company, Incorporated,
5 et al., Defendant. Case number civil action
6 96CV-5903.

7 This deposition is being held at
8 the offices of White and Crumpler, 11 West Fourth
9 Street, Winston-Salem, North Carolina.

10 The court reporter is Linda
11 Russell. The videographer is John Girdler.

12 We're going on the record,
13 Wednesday, May 28th, 1997, at 9:59 a.m. Would
14 counsel please introduce themselves.

15 MR. MAISTROS: Jack Maistros from
16 Cleveland, Ohio.

17 MR. GOTTLIEB: Lou Gottlieb from
18 New York.

19 MS. FEE: I'm Denise Fee from
20 Washington, D.C. I represent R. J. Reynolds
21 Tobacco Company.

22 VIDEOGRAPHER: Would the court
23 reporter please swear in the witness.

24 //

25 //

1 WALTER S. PRITCHARD, Ph.D.,
2 having been first duly sworn, was examined and did
3 testify as follows:

4 EXAMINATION

5 BY MR. MAISTROS:

6 Q. Good morning, Mr. Pritchard. My name is Jack
7 Maistros. I'm going to be asking you a series of
8 questions this morning, and probably this
9 afternoon. If you have any question about my
10 questions, you don't understand my question, you
11 want to take a break, you want to confer with your
12 counsel, let me know and we'll take a break, okay?

13 A. Okay.

14 Q. If you have to go to the restroom, let me
15 know and you can go to the restroom.

16 A. Okay.

17 Q. Could you please state and spell your full
18 name.

19 A. Walter, W-A-L-T-E-R, Scott, S-C-O-T-T,
20 Pritchard, P-R-I-T-C-H-A-R-D.

21 MS. FEE: Jack, before we go
22 further, and I know we've covered this in previous
23 depositions, but I, just to be overly cautious,
24 want to make sure that we have on the record
25 regarding Mr. Gottlieb's presence and his agreeing

1 to the protective order that's entered in the Arch
2 case. As we all know, Mr. Gottlieb is here in
3 connection with the New York case and that he has
4 signed that order, until a New York -- a case -- a
5 protective order in the New York case has been
6 entered; is that correct?

7 MR. GOTTLIEB: I have stated that
8 on the record now three times, and I'll do it for
9 the fourth time. I will be bound by the
10 Pennsylvania protective order until such time as
11 any protective order is entered in the New York
12 litigation.

13 MS. FEE: I apologize for asking
14 you to do it again; but, as I said, I want to be --
15 I want to be complete.

16 MR. MAISTROS: And I was going to
17 do this later in the day, but I'll do it now, since
18 we're putting things on the record.

19 I understand that approximately
20 325,000 highly confidential documents are going to
21 be delivered to Plaintiffs' counsel, yet to be
22 delivered, and many of which we would like to
23 question this witness on. And we reserve the right
24 to -- if we don't complete his deposition today or
25 if we do complete his deposition today, to question

1 him on those documents.

2 MS. FEE: Well, as Mr. McElveen
3 said in the deposition yesterday, I -- the status
4 of those documents is not something that I'm aware
5 of. I do know that there is -- there is a dispute
6 about that and your entitlement to continue the
7 deposition, and that will be worked out, obviously,
8 not here today.

9 Obviously Dr. Pritchard's work has
10 been published in peer review journals and is a
11 matter of public record. And so -- I mean, all
12 that has been available to you for whatever period
13 of time.

14 BY MR. MAISTROS:

15 Q. Mr. Pritchard, where were you born?

16 MS. FEE: It's Dr. Pritchard, I
17 think.

18 BY MR. MAISTROS:

19 Q. Do you prefer "Dr. Pritchard"?

20 A. Either one is fine with me.

21 Q. Where were you born?

22 A. Plainfield, New Jersey.

23 Q. What's the date of your birth?

24 A. September 26th, 1951.

25 Q. You can't be that old. You exercise a lot.

1 What's your current address?
2 A. [DELETE].
3
4 Q. Is that close --
5 A. Repeat that back to me.
6 Q. Current residence?
7 A. Did I say [DELETE] or --
8 Q. [DELETE].
9 A. It's [DELETE]. I'm sorry.
10 Q. How close is [DELETE] to where we are
11 today?
12 A. [DELETE] is approximately 15 miles west of
13 here.
14 Q. How long have you lived in [DELETE]?
15 A. I've lived there two years.
16 Q. Are you married?
17 A. Yes, I am.
18 Q. What's your wife's name?
19 A. Deborah Pritchard.
20 Q. How long have you been married?
21 A. We've been married about two years.
22 Q. Do you have any children?
23 A. Yes, I do.
24 Q. What are their names and ages?
25 A. I have a daughter, Elana Pritchard, who is

1 15; and a son, Jonathan Pritchard, who is 10.
 2 Q. What does your wife do?
 3 A. She works for R.J. Reynolds in the quality
 4 control division.
 5 Q. Were you married previously?
 6 A. Yes, I was.
 7 Q. What was your previous wife's name?
 8 A. Lynn Pritchard.
 9 Q. And what year were you married to Lynn?
 10 A. I believe it was 1980.
 11 Q. And Elana and Jonathan were born as a result
 12 of that marriage?
 13 A. Yes, they were.
 14 Q. Were you ever married prior to Lynn?
 15 A. No.
 16 Q. And when were you divorced?
 17 A. We were divorced about four years ago. We
 18 were -- in North Carolina, you have to be separated
 19 for a year before you get divorced. So we were
 20 separated four years ago, legally, and then
 21 divorced a year later.
 22 Q. That's a good rule.
 23 A. No, it isn't.
 24 Q. What did Lynn do? Or what does she do?
 25 A. She -- she works part time as a voice

1 instructor for the North Carolina School of the
 2 Arts Community School, and she works part time as a
 3 music teacher for Forsyth Country Day. It's a
 4 private high school -- or it's a private school.
 5 Q. Have you ever been deposed before?
 6 A. No, sir.
 7 Q. Have you ever testified in a court proceeding
 8 before?
 9 A. No, sir.
 10 Q. Have you ever been a plaintiff or a defendant
 11 in a lawsuit?
 12 A. No, sir.
 13 Q. Other than your divorce?
 14 A. No.
 15 Q. Your divorce didn't require any litigation?
 16 That was by agreement?
 17 A. Everything was negotiated.
 18 Q. You've never testified on behalf of anyone
 19 else in any proceeding?
 20 A. No.
 21 Q. Were you ever in the military?
 22 A. No.
 23 Q. Have you ever filed a -- do they have
 24 workmen's compensation in North Carolina?
 25 A. I don't know.

1 Q. Never filed a claim for --
 2 A. No.
 3 Q. -- employment benefits or --
 4 A. No.
 5 Q. -- unemployment benefits?
 6 A. No.
 7 Q. Have you lectured before? Have you given
 8 oral presentations anywhere?
 9 A. Yes, I have.
 10 Q. What was the nature of those?
 11 A. When I was a graduate student, I was a
 12 teaching assistant. Didn't really involve
 13 lecturing; I ran a laboratory that the
 14 undergraduate students participated in. I worked
 15 at Southeast Missouri State University for a year
 16 as an assistant professor and did a lot of teaching
 17 there; it was all lecture.
 18 At the University of Texas Medical
 19 Branch, I gave some lectures in the neuroscience
 20 program on biological foundations of psychiatry.
 21 And then I've given some lectures at the Bowman
 22 Gray School of Medicine, here in Winston-Salem, to
 23 medical students.
 24 Q. What years have you worked at RJR?
 25 A. I came to work for RJR in 1986. And I've

1 worked there ever since.
 2 Q. Have you ever provided any lectures
 3 internally at RJR?
 4 A. Lectures? I've given presentations to R & D
 5 personnel on my research that was all published, of
 6 course.
 7 Q. Were any of those lectures recorded?
 8 A. Not to my knowledge.
 9 Q. Were any of them videotaped?
 10 A. I don't remember. I don't think so.
 11 Q. Was there a -- do you go to one building when
 12 you go to work every day?
 13 A. Yes, I do.
 14 Q. What's that building called?
 15 A. The Bowman Gray Technical Center.
 16 Q. Is the Bowman Gray Technical Center an RJR
 17 facility?
 18 A. Yes, it is.
 19 Q. Is there a theater or a presentation room in
 20 that building?
 21 A. There are -- there's a rather medium-size
 22 seminar room, I would say, that held maybe 150
 23 people, if you packed them in.
 24 Q. And what department does that media room fall
 25 under?

1 A. I don't know.
 2 Q. Is there an audio/visual department at RJR?
 3 A. There are people who can help you get, like,
 4 slides made and stuff.
 5 Q. If I wanted to ask for all the videotapes or
 6 the recordings of any presentations made in that
 7 room, who would I send my request to?
 8 A. I would give you Dr. Burger, who's the senior
 9 VP in charge of R & D. He would be able to find
 10 the answer to your question.
 11 Q. When you give these presentations at Bowman
 12 Gray, are they written and you're reading from them
 13 or are they off the top of your head?
 14 A. No. I don't like to read. It doesn't give a
 15 good presentation. I don't even use notes.
 16 Q. You don't use outlines?
 17 A. No. I usually have slides or something that
 18 illustrate the topic that I'm talking about.
 19 Q. You had listed the locations of places you've
 20 given -- and I'll use the word "lectures" loosely,
 21 speeches, talks.
 22 A. I've given numerous talks in scientific
 23 conventions and things like that.
 24 Q. So that would be another category, scientific
 25 conventions?

1 A. Right. When you said "lecture," I thought
2 you meant in an academic setting.

3 Q. When you give talks at scientific
4 conventions, do you also do that off the top of
5 your head or do you have notes?

6 A. I occasionally will have some notes jotted
7 down. Just to make sure I cover all the stuff I
8 want to say.

9 Q. Do you have a file, either at home or at
10 work, that would contain at least the dates and
11 locations of where you've given lectures or
12 presentations?

13 A. It would be on my Vita, yes.

14 Q. And do you have a file at home or at work
15 that would contain whatever notes you had when you
16 gave those presentations?

17 A. No, I don't save the notes.

18 Q. Do you have a computer at home?

19 A. Yes, I do.

20 Q. Is there anything on your computer that would
21 relate to the lectures you've given or speeches
22 you've given?

23 A. The computer may have some text files when I
24 was writing papers for publication. It was a --
25 it's an old computer that I took home when it got

1 retired by a newer computer at work.

2 Q. And all the data that was in the RJR computer
3 remained when you took it home?

4 A. I don't recall, off the top of my head. To
5 free up space for other things, I may have deleted
6 some of the files.

7 Q. Did you download any files rather than delete
8 them?

9 A. Did I download files?

10 Q. Yeah.

11 A. I download files off the Internet
12 occasionally.

13 Q. Did you download any of your RJR or your
14 personal files that are on floppy disks or any
15 other type of retention system?

16 A. Could you be more specific what you mean by
17 "download"? That has a specific meaning to me.
18 Which is there's -- somewhere out there in the
19 Internet is software or text that you want, and
20 downloading means to bring it into your computer
21 over the Internet.

22 Q. Okay. I know how to turn my computer on and
23 I know how to push the escape button. That's the
24 extent of my knowledge.

25 What I'm talking about is if you've got

1 something in the computer that you want to have on
 2 a separate hard copy somewhere so it's not lost.
 3 Have you done that to any RJR files?
 4 A. You mean have I backed up?
 5 Q. Yes.
 6 A. As I'm writing documents, if the disk were to
 7 crash, I would save them on floppy disks. But once
 8 they were out and published, I wouldn't -- you
 9 know, I'd overwrite the floppies with a new
 10 article.
 11 Q. Has anyone ever asked you to review your
 12 computer files at home to determine if you have any
 13 documents responsive to any document requests the
 14 plaintiffs submitted in this case?
 15 A. No.
 16 Q. Do you have any files of actually paper in
 17 them that would contain any work you had done at
 18 RJR that you have at home?
 19 A. No. I have copies in my published research
 20 at home to show people; but mostly the copies are
 21 at work or they've already been mailed out to other
 22 scientists requesting them as reprints.
 23 Q. Has anyone interviewed you with respect to
 24 your work at RJR?
 25 A. I was interviewed, let's see, by a reporter

1 for some newspaper in Maryland one time, a couple
2 of years ago.

3 Q. What type of stuff was he asking you? Or
4 she.

5 A. There was some research published by a
6 scientist that I disagreed with.

7 Q. Who --

8 A. His name was George Spillich.

9 Q. Do you know how to spell his last name?

10 A. I could give you a guess: S-P-I-L-L-I-C-H.

11 Q. And who did he work for?

12 A. He is a professor at a university there. The
13 reporter asked if there was anyone that could give
14 a different view on his research, and he suggested
15 my name to her.

16 Q. What was the topic of his research?

17 A. He was looking at the effects of smoking on
18 performance.

19 Q. On performance?

20 A. Mental performance, human mental performance.

21 Q. And without getting into the technical
22 aspects, what was the -- if you had to summarize
23 his position, what was his position on the effects
24 of cigarettes on performance?

25 A. His research showed that, when a person quit

1 smoking, they performed better; which was a unique
2 finding in the literature, as far as I knew.

3 Q. How did he know you existed to give a
4 different opinion?

5 A. We had -- we've met at scientific meetings.
6 We correspond by e-mail fairly regularly. Nothing
7 to do with our mutual disagreements, but it's more
8 like we send each other jokes and stuff.

9 Q. What's your e-mail address?

10 A. [DELETE].

11 Q. Other than this newspaper reporter, has
12 anybody interviewed you on what you do for RJR?

13 A. No. Not that I recall.

14 Q. Has the FBI ever interviewed you?

15 A. No, sir.

16 Q. Has anyone from the justice department ever
17 interviewed you?

18 A. No, sir.

19 Q. Do you know what a 302 is?

20 A. I have no idea.

21 Q. Has anyone from the FDA interviewed you?

22 A. No.

23 Q. How about from the FTC?

24 A. No.

25 Q. How about the Agriculture Department?

1 A. No.
2 Q. How about internally at RJR? Has anyone
3 interviewed you, other than lawyers, to ask you
4 what it is you do at RJR in relationship to any of
5 this tobacco litigation?
6 A. No.
7 Q. Has anyone asked you to sign any sort of
8 sworn statements relating to what you do?
9 A. No.
10 Q. Has anyone asked you to provide a summary of
11 what you do in any written form?
12 A. It's standard practice at the end of the year
13 to turn in a summary of what you've done for
14 performance evaluation purposes.
15 Q. Standard practice at RJR or in your
16 department?
17 A. I think it's standard practice in business in
18 general.
19 Q. You've done that since '86?
20 A. Yeah, I think so.
21 Q. And who do you provide those to?
22 A. They're provided to my boss.
23 Q. And who is that, currently?
24 A. John Robinson.
25 Q. Do you know where he keeps them?

1 A. No, I do not.
 2 Q. And do your colleagues provide year-end
 3 summaries?
 4 A. You know, I really don't know if it's
 5 company-wide. That's just the way it's been to,
 6 you know -- he would have a good knowledge already
 7 of what I've done, obviously, but then, just to --
 8 so he wouldn't leave anything out that I had done.
 9 Q. Do you have also a prospective plan, if you
 10 will, of what you plan on doing for the upcoming
 11 year?
 12 A. We would do that, yeah.
 13 Q. When would that be prepared?
 14 A. Sort of -- the fiscal year, I believe, is
 15 March 1st, so it would be prepared
 16 December/January, thereabouts.
 17 Q. And that also has to be submitted to
 18 Mr. Robinson?
 19 A. It would go to John Robinson currently, yes.
 20 I'm not sure I did one for this year. We might
 21 have just talked about it.
 22 Q. Is that because you decided not to do one?
 23 Or they changed the policy or --
 24 A. He didn't ask me for a written one, as far
 25 as -- as far as I recall.

1 Q. Was this the first year that you were not
2 asked for a written one?

3 A. I believe so. Generally, we've outlined
4 plans for the coming year, yeah.

5 Q. But you did turn in a year-end summary this
6 year?

7 A. Yes.

8 Q. Where have you had papers published? What
9 journals?

10 A. I've had them published in Psychophysiology,
11 the International Journal of Psychophysiology. I'm
12 waiting till you finish writing.

13 Q. Very kind of you.

14 A. The Journal of Psychophysiology,
15 Psychopharmacology, Neuropsychobiology, Brain and
16 Behavioral Sciences, Psychological Bulletin, the
17 Journal of Experimental Psychology: General.

18 Q. Uh-huh.

19 A. The Bulletin of the Psychonomics Society, the
20 Journal of Autism and Developmental Disorders,
21 Dementia --

22 Q. My favorite.

23 A. -- NeuroReport, Physiology in Behavior. I
24 have one in press in Physica D. I have one in --
25 that I'm a coauthor on in press in Indoor Air. I

1 know I'm leaving a couple out, but I could provide
2 a complete list to you.

3 Q. Okay. Describe for me the process whereby --
4 beginning to end, where you would come up with a
5 thesis or a topic that would end up in a journal.

6 A. Based upon what had been done previously in
7 the scientific literature, I would think: There's
8 a gap in the knowledge, that an experiment we could
9 do would address. We'd talk it over with John
10 Robinson, who's been a coauthor on a large number
11 of my papers. Back when John Reynolds still worked
12 for RJR, he would be involved in those discussions.
13 Possibly some other people.

14 Q. What was John Reynolds' title?

15 A. He was my manager before John Robinson.

16 Q. When did John Reynolds leave?

17 A. He retired last year.

18 Q. Before you even started on the process of
19 setting up the experiment or putting pen to paper,
20 you would talk to Reynolds and Robinson and
21 possibly others?

22 A. Yes.

23 Q. Could you start the experiment or the thought
24 process of putting together a paper without
25 clearing it through Reynolds or Robinson?

1 A. Yes.

2 Q. So --

3 A. They had good ideas; they were helpful.
4 Science is usually done as a team.

5 Q. Was there any written protocol at RJR that
6 was in place, or that is in place, that would cover
7 under what circumstances you could initiate such
8 papers?

9 A. No.

10 Q. Is there any written or unwritten policy on a
11 certain person having to approve any papers?

12 A. Once the experiment is done, it goes through
13 what used to be called the Presentation Publication
14 Review Committee, and, I believe, is currently
15 called the Document Review or Approval Process.
16 And that was to make sure nothing that was
17 proprietary or a business trade secret would get
18 out to our competitors.

19 For my basic science stuff, which was
20 the large majority of what I did, it was -- it was
21 a formality. That -- that step was -- for me, was
22 largely just a formality. I mean, it ...

23 Q. Who was on -- and you say now you believe
24 it's the Document Review or Approval Process?

25 A. Yeah. It's basically the -- the same

1 sequence. They changed the name.

2 Q. Who's on that committee today?

3 A. The first two -- it's a series of signatures
4 you get on a form. The first two are colleagues
5 who have read the paper and think it's readable, it
6 communicates the points clearly. You know, they
7 find typos.

8 Then your manager would sign it. For
9 most of my papers, John was already a coauthor,
10 so ...

11 Then his boss would sign it; which would
12 currently be Donald -- J. Donald deBethizy.

13 Then the law department would sign it --
14 or the law department may sign it before -- before
15 Don. I think I had that sequence off there.

16 Then Don would sign it. Then the
17 director -- the head of R & D or his representative
18 would sign it as the final step.

19 Q. Who's that?

20 A. The head of R & D is currently Gary Burger.
21 But Robert Suber signs in his place for that final
22 step.

23 Q. Have you ever had any papers, in your ten
24 years at RJR, that didn't make it through that
25 process?

1 A. No, sir.

2 Q. Is the -- is your manager allowed to edit
3 your paper?

4 A. This is a rather special case. He's also the
5 coauthor. So, as you know, when you coauthor a
6 paper, it's an interchange of ideas and -- you
7 know, one person may write a certain part, for
8 example. But as first author on most of them, I
9 would have the final call on anything.

10 Q. Has it happened in the past where your
11 manager or your manager's boss has edited your
12 papers?

13 A. They've found typos and they've said, "This
14 sentence isn't clear to me," you know, not being an
15 expert in the area. So I would reword the sentence
16 to convey the idea I was trying to make clear.

17 Q. Have your managers or your managers' boss
18 ever changed any of your terminology, without
19 changing the substance of what -- the thought you
20 were trying to convey?

21 A. They would suggest that, "Maybe this wasn't
22 worded clearly. Can you come up with a wording
23 that I -- you know, is more clearly" -- you know,
24 sometimes, as an expert, you tend to -- you use
25 jargon, maybe, or something. They would just say,

1 you know, "Maybe this could be worded more
2 clearly." And I would say, "Okay, how's this?"
3 And, "That's much better. I understand now."

4 Q. Is there a preferred glossary of terms, if
5 you will, at RJR that are to be used to describe
6 certain processes?

7 A. Not that I know of. I'm not sure I
8 understand what you mean.

9 Q. Well, I'm sure there's -- in your area
10 there's probably three words for every process or
11 substance of three different scientific terms. Is
12 there a preferred hierarchy of the use of certain
13 terms or --

14 A. Could you give me an example?

15 Q. Well, let's say you wanted to write about
16 whether tobacco caused cancer, for example.

17 A. That's totally outside my area.

18 Q. Let's say you wanted to talk about whether
19 tobacco had an effect on brain waves.

20 A. There the terminology would be EEG, because
21 brain waves is sort of a layperson's term. Some
22 preferred scientific term would be EEG.

23 Q. What if you wanted to talk about whether
24 tobacco or any of its byproducts had an effect on
25 just the general biology of the human body?

1 MS. FEE: What's the question?

2 BY MR. MAISTROS:

3 Q. I mean, I'm still trying to get at: Is there
4 some agreed upon terms that are used in your
5 papers, or is that something you have free rein
6 over?

7 A. We use the terms that are used in -- in that
8 field, scientifically, throughout the world. We
9 use EEG; event-related potential to talk about, you
10 know, event-related EEG activity. Heart rate is
11 heart rate; that's the term that's used, you know,
12 both by lay people and in science. Reaction time
13 is reaction time. You know, those are the terms we
14 use for our measures.

15 Q. Has the law department ever edited your
16 papers?

17 A. The law department, like all the other people
18 that sign, will occasionally say: "This sentence
19 isn't clear. Can you write it so that, you know, I
20 can understand it so it's clearer?"

21 Q. Are these scientists in the law department or
22 lawyers in the law department?

23 A. They're lawyers.

24 Q. And it wasn't clear to the lawyers from a
25 scientific or a legal standpoint, or what? I don't

1 understand.

2 A. Well they're interested in what's in the
3 paper and they want to have an understanding of it.
4 So there might be a sentence that they didn't
5 understand. And I -- if I thought I could reword
6 it, I would. If I didn't, I'd say, "I really can't
7 reword that; it's -- it's in the proper scientific
8 format. But here's what it means," and I would
9 explain it to them.

10 Q. Are there particular lawyers in the law
11 department that work with you on your papers or is
12 there random ...

13 A. No. I -- there was one -- well, it used to
14 be you needed a signature from two lawyers. One
15 was a patent lawyer. And they dropped that.
16 That's no longer necessary. First of all, I never
17 did anything that was patentable.

18 The other person would be the -- I don't
19 know what the title is, the chief counsel of R & D.
20 That's not it, but that's equivalent. And that was
21 who would sign it.

22 Q. Do you know who that was?

23 A. It was Chuck Blixt, Charles Blixt, who's now
24 our chief counsel, I believe. Then it was Suzanne
25 Jowdy. And now it's Mike -- what's Mike's last

1 name? He just came on board about a month ago, two
2 months ago. Johnson, I believe. Michael Johnson.

3 Q. And when it would come back from the law
4 department, for example, with changes to clarify
5 this sentence or that sentence, would you keep the
6 old drafts of what was changed?

7 MS. FEE: Object to the form.
8 That's not what he testified to.

9 BY MR. MAISTROS:

10 Q. Whatever the law department did with your
11 papers and they had suggested comments or changes,
12 did you keep their changes?

13 A. It -- well, what usually happened is they
14 would either sign it or they would call and say,
15 "There's a part here, I -- you know, I don't
16 understand. Could you explain it to me?" And we'd
17 talk.

18 If they just sent it back, there would
19 be maybe a typo that they found, and I would
20 correct the typo. I would not save the previous
21 document with the misspelled word, no.

22 Q. But these papers you would do, would you do
23 those yourself or would you have a secretarial
24 pool --

25 A. I type myself. I'm a fast typer.

1 Q. Would they always be typed at the office?

2 A. Yes, they would.

3 Q. Do you have a computer tape, CD, floppy
4 disks, something of all your papers you've ever
5 done?

6 (DISCUSSION OFF THE RECORD)

7 A. Could you repeat the question?

8 Q. Do you have any sort of computer backup of
9 the papers you've done?

10 A. As I said before, as I was writing the paper,
11 I would back up the text file to a floppy disk,
12 just in case the hard drive crashed, which is
13 everybody's computer nightmare. Once the paper was
14 then submitted to publication and accepted, I
15 would -- and, you know, reached the galley stage
16 proof of the publication process, I would not save
17 them.

18 They may remain on the hard disk; I
19 would -- I wouldn't back them up anymore at that
20 point. I'd be done. And eventually I'd overwrite
21 what was on the floppy with something new I was
22 working on.

23 Q. Could you describe for me the structure of
24 the department you work in and, if it's changed
25 since '86, how it's changed.

1 A. In '86, when I started, I was in the
2 biobehavioral division. The manager was John H.
3 Reynolds, IV. And then -- I believe it was 1992 --
4 excuse me, the biobehavioral division got split up
5 and I stayed with a subunit of that called the
6 psychophysiology lab, which was then headed by John
7 Robinson.

8 Q. What was the other subdivision?

9 A. I don't recall all the divisions the people
10 went to.

11 Q. No, but the biobehavioral division was
12 subdivided into --

13 A. It ceased to exist, and the people went to
14 other areas. One of the areas -- the area I went
15 to was a new organizational entity called the
16 psychophysiology lab.

17 Q. Was there created a biochemistry lab?

18 A. I don't know if we have a biochemistry lab,
19 per se, or not.

20 Q. Did you always have a biological research
21 department since you've been there?

22 A. No. We didn't have a department with that
23 name the whole time I worked there.

24 Q. Do you now?

25 A. No.

1 Q. Did you have a biological research division
 2 or branch or anything?
 3 A. There was a formal entity called the
 4 Biological Research Division, which isn't on the
 5 organizational chart anymore.
 6 Q. It was in '86?
 7 A. No. Then it was called
 8 Biochemical/Biobehavioral R & D, and it was headed
 9 by Wally Hayes.
 10 Q. Let's go back, though, to '86. You had a
 11 biobehavioral division that you were in.
 12 A. Yes.
 13 Q. What other scientific divisions were at RJR
 14 at that time?
 15 A. In Bio-Bio there was biobehavioral, and there
 16 were various divisions of toxicology. I'm not sure
 17 I could give you the exact names of what they were.
 18 Q. Okay. You have RJR at the top, the company.
 19 Okay?
 20 A. (Witness nods head.)
 21 Q. What was the next level that would be
 22 above -- directly above you in line that would head
 23 up to RJR? I'm looking for --
 24 A. My manager.
 25 Q. And who was that?

1 A. In '86, as I said, it was John Reynolds. And
2 in '92, I believe it was '92, it was John Robinson.

3 Q. But were they within the biobehavioral
4 division or were they in another division above
5 you?

6 A. John Reynolds was in the bio-behav -- was the
7 manager of the biobehavioral division.

8 Q. And who was his supervisor?

9 A. His supervisor was Wally Hayes. Wallace
10 Hayes is his real name.

11 Q. What was his title?

12 A. I believe he was a vice president.

13 Q. Is there somebody comparable today that has
14 that title?

15 A. I guess, J. Don deBethizy. J. Donald
16 deBethizy is also a vice president.

17 Q. Well, for example, you -- you said you
18 wouldn't get into -- I believe my question had
19 something to do with cancer; that wouldn't be your
20 area in the bio-behavioral division. Would others
21 in the biobehavioral division be involved in that?

22 A. I'm not aware of any people who were doing
23 cancer. They were -- they did stuff like with
24 bacteria, looking at mutations and things like
25 that. The Ames test -- there's a lot of others;

1 you know, I'm not a toxicologist.

2 Q. I'm trying to understand the scientific
3 structure of RJR. I want to be clear in this. Is
4 there one division called the biobehavioral
5 division where all the scientific research would
6 have been done?

7 A. No.

8 Q. Explain that overall structure to me then.

9 A. Well, there is -- as I said before, there is
10 no more biobehavioral division.

11 Q. I know, it's psychophysiology now.

12 A. Yes.

13 Q. But when it was biobehavioral, were there
14 other comparable divisions that did --

15 A. Biobehavioral was part of a larger
16 organizational entity called
17 biochemical/biobehavioral, headed by Hayes. Under
18 that, there were four or five managers, one of
19 which was John Reynolds, who headed the
20 biobehavioral division and was my boss. And the
21 others were various toxicology things.

22 Q. Like what?

23 A. I don't remember their names specifically.

24 Q. Well, what are toxicology things?

25 A. They were divisions that did toxicological

1 research.
 2 Q. Up above the bio -- biological/biochemical
 3 division, if you will, who was above that?
 4 A. Above that, at that time, would have been
 5 G. Robert diMarco, who was the head of research and
 6 development.
 7 Q. Okay. So research and development would have
 8 been the big title above the
 9 biological/biochemical?
 10 A. It was biochemical/biobehavioral.
 11 Q. But that would have been under research and
 12 development?
 13 A. Wally Hayes reported to Bob diMarco.
 14 Q. Who was head of research and development?
 15 A. Yes.
 16 Q. And who did Mr. diMarco report to?
 17 A. Whoever was president of the company, I
 18 guess.
 19 Q. Is it a mischaracterization, though, to say
 20 that all the scientific research that was done
 21 since you've been at RJR was done at least under
 22 the division research and development?
 23 A. I'm not aware of any scientific research at
 24 RJR that was done outside of R & D, no.
 25 Q. When I say outside of R & D, I'm talking

1 about outside in a different division in Reynolds
2 or out-sourced to a different company --
3 A. No.
4 Q. -- or funded out.
5 A. Not to my knowledge, no.
6 Q. Where does Bowman Gray fit in that hierarchy?
7 Is that in a division or in --
8 A. Bowman Gray is the name of the building.
9 Q. And is it fair to say that all scientific
10 research at R -- within RJR and within research and
11 development occurred at Bowman Gray?
12 A. Yes. To my knowledge, yes.
13 Q. Where is the Bowman Gray library?
14 A. It's on the second floor.
15 Q. Who's the librarian?
16 A. I don't know.
17 Q. Are there computers at the Bowman Gray
18 library?
19 A. Yes, there are.
20 Q. Could I go in there and look at them if I
21 wanted to, or would I have to be an RJR person?
22 A. I think you would have to be an RJR person.
23 The building is secure and visitors aren't free to
24 walk in and out.
25 Q. Is it like what I know a library to be,

1 there's books and there's --
2 A. Yes.
3 Q. -- magazines?
4 A. Yes. And journals.
5 Q. And what?
6 A. Journals.
7 Q. Are you allowed to go in -- like today you
8 could take a break, walk over, sign out a journal
9 and come back?
10 A. Yes.
11 Q. Is there anything you're not allowed to sign
12 out?
13 A. Not to my knowledge.
14 Q. Are there computers in that library?
15 A. Yes.
16 Q. Have you been on those computers, personally?
17 A. The computers, as I understand them, were
18 available for doing -- searching database --
19 scientific databases on whatever topic you were
20 interested in.
21 I've -- I never used them. I already --
22 I already knew that my area well enough to know
23 which articles I wanted, or I already had them.
24 Q. Are the -- is the information on the Bowman
25 Gray computer databases restricted to RJR-created

1 products?

2 MS. FEE: Object to the form. He
3 didn't say they were Bowman Gray databases.

4 MR. MAISTROS: I'm just talking
5 about location.

6 THE WITNESS: I don't understand --
7 BY MR. MAISTROS:

8 Q. The computers at the Bowman Gray library, are
9 they -- or do they contain data from just RJR
10 research or from third parties as well?

11 A. There's a large collection of reprints from
12 scientific journals.

13 Q. Would it be possible, if I wanted to and I
14 had clearance, to go over there and go on the
15 computer and determine all scientific research RJR
16 had done from the beginning of time?

17 A. I have no idea.

18 Q. Is there -- do you know if there's any
19 journals over in the Bowman Gray library that would
20 contain a listing of RJR research from the
21 beginning of time to the present?

22 A. I'm talking scientific journals. They would
23 not have that, no.

24 Q. Is there a separate repository at RJR for
25 in-house scientific work as opposed to things that

1 end up as journal publications?

2 A. I believe there's a warehouse where you send
3 old internal stuff to.

4 Q. Where is that warehouse?

5 A. I don't know where it is.

6 Q. Is there a form you have to fill out as you
7 send it off to the warehouse?

8 A. I'm trying to remember. There may be. I
9 haven't done that in a while.

10 Like I say, I didn't generate a lot of
11 business memos and stuff like that, since most of
12 my -- what I did was, you know, basic scientific
13 research. And the ultimate target there was
14 publishing it in the scientific literature.

15 Q. Other than the year-end summaries and the
16 prospective reports that you would prepare prior to
17 a fiscal year, would you have to send written
18 reports to anyone within your department on a
19 regular basis as to what you were doing?

20 A. There was a time when we would submit,
21 weekly, something called Highlights. And that was
22 basically a summary of what you'd been doing that
23 week. That's no longer in existence.

24 Q. What years was it in existence?

25 A. I'd say '86 to -- I'm just guessing here --

1 '91, '90.

2 Q. Where did you have to send that to?

3 A. I sent it to John Reynolds.

4 Q. Have you only had two main supervisors since
5 you've been at RJR, Reynolds and Robinson?

6 A. Yes.

7 Q. During the ten plus years you've been at RJR,
8 is it fair to say that Reynolds and Robinson would
9 know all the projects you were working on?

10 A. Yes.

11 Q. Do you know why that reporting process ended?

12 A. I think it was a colossal pain.

13 Q. Too much paper?

14 A. Yeah -- it was -- well, it was just a pain to
15 do, you know. It -- it was an annoyance. It got
16 in the way of you doing your work. It was a
17 Dilbert thing.

18 Q. Did you ever see what Reynolds or Robinson
19 did with those weekly highlights?

20 A. I believe they then submitted the
21 biobehavioral division highlights to Wally Hayes,
22 and then Wally Hayes submitted the Bio-Bio
23 highlights. They -- it would get distilled down to
24 what they thought the most interesting things were,
25 that other people would be interested in, and then

1 the final highlights was distributed to R & D.

2 It was a way -- the goal was laudable,
3 just to keep other people informed what other
4 divisions were doing. It was just administratively
5 a pain, like I said.

6 Q. So your weekly highlights would eventually
7 end up to Hayes or diMarco or both?

8 A. They could.

9 Q. In some distilled form. And I assume
10 there's -- how many of you --

11 A. When I say "distilled," there might be five
12 things that could have gone to the next level, and
13 you choose three of them. You don't alter what was
14 written, you just choose: These three look most
15 interesting that I think other people would want to
16 hear about.

17 Q. And I assume --

18 A. I didn't do the distilling, so I don't really
19 know. I'm just speculating here.

20 Q. But you and everyone else in your department
21 would be doing these highlights?

22 A. The exempt people.

23 Q. What do you mean, the "exempt" people?

24 A. The people who are -- it's a legal term,
25 isn't it? Maybe it's only in North Carolina.

1 Exempt employees don't get paid for
2 overtime. They're like the salaried or
3 professional employees. That's my understanding of
4 who wrote the highlights.

5 Q. The exempt people did or did not write
6 highlights?

7 A. They did. The lab technicians would not have
8 to write highlights.

9 Q. Has your title changed from '86 to the
10 present?

11 A. Yes.

12 Q. Why don't you take me through your titles and
13 the years.

14 A. I started off as a senior behavioral
15 scientist. Then, I believe it was '92, I was
16 promoted to senior staff scientist. And then in
17 '95 I was promoted to master scientist.

18 Q. What's next, if you're that fortunate?

19 A. Next would be principal scientist.

20 Q. Robinson is a --

21 A. Principal scientist.

22 Q. -- principal scientist?

23 What was your pay when you were hired?

24 A. Good God. I believe it was around 48K.

25 Q. And in '92, to become a senior staff

1 scientist?
2 A. Well, I got raises. Senior staff scientist,
3 around 80K.
4 Q. And master scientist in '95?
5 A. Master scientist, you make a salary of -- I
6 make a salary of around 90K, and then you get a
7 performance bonus that's tied to company
8 performance and some -- something I couldn't even
9 begin to reproduce for you.
10 Q. Those people in the law department drafted
11 it.
12 A. I wouldn't even pin it on them; it sounds
13 like an accountant thing.
14 Q. How would your functions differ from when you
15 were a senior behavioral scientist to master
16 scientist?
17 A. My function remained the same.
18 Q. Did you have increased supervisory
19 responsibility?
20 A. No.
21 Q. So these levels are just in recognition of
22 your expertise, per se?
23 A. Yeah. You know, years with the company and
24 you get promoted. I think it's typical of any
25 corporation to promote people.

1 Q. But --
2 A. If you do a good job.
3 Q. What you were doing as a senior behavioral
4 scientist in 1986 day-to-day activities have
5 essentially remained unchanged?
6 A. That's correct. Basic scientific research.
7 Q. Do you have to get permission from RJR if you
8 want to go lecture somewhere?
9 A. No. Again, the -- an abstract of the
10 presentation would have to go through the PPRC --
11 or the document approval process or whatever. If
12 there was going to be an abstract published, say,
13 from the conference or ...
14 Q. Have you done that process?
15 A. Oh, yes.
16 Q. And you were allowed to lecture as a senior
17 behavioral scientist?
18 A. You mean make presentations --
19 Q. Yes.
20 A. Yes.
21 Q. In 1986, could you give me an approximation
22 of how many other senior behavioral scientists
23 there were in your division?
24 A. I'm not sure if John Robinson was senior
25 staff by that time or not. There was one other

1 person who was the senior staff. I'm sorry, senior
 2 behavioral scientist.
 3 Q. Who was that?
 4 A. James Walker.
 5 Q. And what would the people below senior
 6 behavioral scientist be called?
 7 A. They're various titles having, like,
 8 technician and -- or technologist and -- with Roman
 9 numerals.
 10 Q. Scientist I, scientist II?
 11 A. Not scientist. They would be technologist I,
 12 technologist -- something like that.
 13 Q. When you were hired, were you given a job
 14 description?
 15 A. I believe I was, yeah. I believe so. I'm
 16 not -- I'm not a hundred percent sure.
 17 Q. Do you have a personnel file there?
 18 A. I -- yes. Everybody does.
 19 Q. When was the last time you looked at it?
 20 A. I've never gone in and looked at it.
 21 Q. When you have reviews, are they written
 22 reviews?
 23 A. Yes, they are.
 24 Q. Do you have to sign-off on them?
 25 A. Yes, I do.

1 Q. Have you ever been demoted?
2 A. No.
3 Q. Have you ever not gotten a raise because of
4 something that happened in the last year?
5 A. There was one year I did not get a raise.
6 Q. What was that attributable to?
7 A. The company came up with a wonderful scheme
8 to motivate people, where half the people wouldn't
9 get raises.
10 Q. Randomly selected?
11 A. As far as I could tell, yeah.
12 Q. What year was that?
13 A. I don't remember. It was under John
14 Reynolds, so it was before '92. It only lasted one
15 year; let's put it that way.
16 Q. When you were hired, did you have to sign a
17 contract?
18 A. No.
19 Q. Did you have to sign a non-compete?
20 A. Yes, I did.
21 Q. Do you remember what the duration was? After
22 you left.
23 A. I believe it was three years.
24 Q. Did you have to sign a confidentiality
25 agreement?

1 A. No. I don't think so. It just talked about
2 not going to work for another tobacco company, if I
3 left voluntarily, for three years.

4 Q. Did you have to sign any sort of document
5 where you signed any patent rights you might have
6 developed to the company?

7 A. Not that I recall.

8 Q. If you developed some process that was useful
9 to the world and it could be patented, is that
10 something that you believe you would own or you
11 would have to turn it over to RJR?

12 A. I don't know. I've never done anything that
13 was patented.

14 Q. Do you know if your name has ever appeared on
15 any patent applications for RJR?

16 A. Not to my knowledge.

17 Q. What was your -- who hired you? What is the
18 person's name?

19 A. John Reynolds.

20 Q. Did anyone else interview you?

21 A. Yes. John Robinson was one person; I talked
22 with Hayes. There may have been others; I don't
23 remember.

24 Q. And when you were interviewed, did they
25 explain to you: "Mr. Pritchard -- Dr. Pritchard,

1 we hope, if we hire you, you'll accomplish the
2 following"?

3 A. They said they wanted someone to come in and
4 do basic scientific research.

5 Q. Were you replacing anyone?

6 A. Not that I know of.

7 Q. Were you given any idea of what basic
8 scientific research meant?

9 A. It meant to conduct scientific research on
10 psychophysiology of smoking and publish it in the
11 scientific literature.

12 Q. Did they specifically mention they'd like you
13 to have material published?

14 A. Yes.

15 Q. Did they tell you why?

16 A. Because they wanted to advance scientific
17 understanding of the area.

18 Q. Prior to 1986, wasn't there extensive
19 publication in this area?

20 MS. FEE: Object to the form.

21 BY MR. MAISTROS:

22 Q. Do you know?

23 A. There was publication in the area prior to
24 that, yes.

25 Q. Describe to me, in layman's terms, not

1 scientific terms, what the, quote, area, unquote,
 2 is.
 3 A. The area -- you mean, what my research is in?
 4 Q. Yes.
 5 A. It's to use behavioral and physiological
 6 measures to study the effects of smoking.
 7 Q. And were you told, when you were hired, that
 8 this was a new area RJR was going into, or it was a
 9 continuation of somebody else's research?
 10 A. John Robinson had published in the area
 11 previously. They had another scientist who had
 12 worked there and left and published in the area.
 13 Q. Who was that?
 14 A. Dave Gilbert.
 15 Q. Were you given a budget or an outline of what
 16 your staff would consist of?
 17 MS. FEE: Object to the form.
 18 BY MR. MAISTROS:
 19 Q. Were you just hired to come in and -- and
 20 start up this specific research department? Or was
 21 it you and you alone? What was it?
 22 A. It was John and I. And we had a lab tech --
 23 various lab techs.
 24 Q. When you were hired, were you told: "This is
 25 what we expect out of you. Go hire who you want,"

1 or --
2 A. No, I didn't hire anybody else.
3 Q. How were you going to accomplish this
4 research? On your own? Through the use of
5 technicians? Combination of that?
6 A. The technicians would assist me in running
7 the experiments.
8 Q. Would you ever go to outside companies to
9 conduct experiments?
10 A. No.
11 Q. Would you ever go to outside companies for
12 any purpose in your research?
13 A. To purchase equipment.
14 Q. But you wouldn't, say, subcontract to -- I
15 don't even know if it's done in your business,
16 subcontract to the ABC College to run a part of
17 your experiment?
18 A. No.
19 Q. When you were hired by RJR, what were you
20 doing at the time?
21 A. I was in -- you mean my previous position?
22 Q. Yes.
23 A. I was an assistant professor of psychiatry at
24 the University of Texas, Medical Branch.
25 Q. What years?

1 A. I was there from '83 to '86, I believe.
 2 Q. What, prior to that?
 3 A. I was an assistant professor of psychology at
 4 Southeast Missouri State University.
 5 Q. What years?
 6 A. Eighty -- let's see. '82 to '83.
 7 Q. Prior to that?
 8 A. I was a postdoctoral research fellow at the
 9 University of Illinois.
 10 Q. What years?
 11 A. '81 to '82.
 12 Q. Prior to that?
 13 A. I was a graduate student.
 14 Q. Where?
 15 A. University of Cincinnati.
 16 Q. What years?
 17 A. Around -- I believe '78 to '82 -- or '81.
 18 '77 to '81? You know, it's on my Vita. I can look
 19 this up if you need the information.
 20 Q. Prior to that?
 21 A. Prior to that I was a graduate student at
 22 California State University at Los Angeles.
 23 Q. What years?
 24 A. That would have been like '75 to '77.
 25 Q. And prior to that?

1 A. Prior to that I was an undergraduate at Ohio
 2 State University.
 3 Q. What years?
 4 A. '69 to '74. I think.
 5 Q. Last national championship. You were there.
 6 A. True.
 7 Q. How about prior to that?
 8 A. I was a high school student.
 9 Q. Where?
 10 A. Auora High School.
 11 Q. What year did you graduate?
 12 A. 1969.
 13 Q. When did you first become involved in
 14 tobacco-related research?
 15 A. When I --
 16 MS. FEE: Object to the form.
 17 Go ahead.
 18 THE WITNESS: Do I answer?
 19 MS. FEE: Uh-huh.
 20 THE WITNESS: When I went to work
 21 for R.J. Reynolds.
 22 BY MR. MAISTROS:
 23 Q. Prior to 1986 you had not done any research
 24 in any area related to tobacco?
 25 A. No.

1 Q. Cigarettes?

2 A. No.

3 Q. Nicotine?

4 A. No.

5 Q. How were you qualified to respond to the
6 position that was open at RJR in 1986? In your own
7 opinion.

8 A. I had published research in the measures that
9 were to be used, performance measures, EEG, ERP's.
10 I had conducted just a lot of research that -- you
11 know, using the techniques that they wanted to
12 apply to investigation of smoking.

13 Q. When you say that you had done research with
14 performance measures, are you saying that your
15 background enabled you to develop standards by
16 which other performance characteristics could be
17 measured against?

18 A. No. I'm talking measuring human performances
19 in reaction time tests, memory tests, things like
20 that. Behavioral performance.

21 Q. In what setting? Prior to RJR.

22 A. It was in an academic setting.

23 Q. I know, but what -- human performance in a
24 vacuum or human performance after drugs were
25 administered? What?

1 A. We were using event-related brain potentials
2 to investigate stages of information processing
3 involved in rapid decision-making. We did studies
4 of impulsivity in -- as a personality trait and how
5 that would -- whether there were any correlates of
6 that in brain wave -- in EEG activity.

7 Q. You mean, like people going out and buying a
8 new car out of the blue on a Saturday?

9 A. There are people who are high in impulsivity
10 and tend to get themselves in -- in difficulties
11 such as you've described, yeah.

12 Q. How did you come to learn of this potential
13 opening at RJR?

14 A. RJR had a -- I believe he was a consultant at
15 the time, named Charles Spielburger. He's a past
16 president of the American Psychological
17 Association. And they asked him to see if they
18 could -- he could, through his contacts, find a
19 candidate. And he sent a letter to my boss in
20 Texas. And he left the letter lying in the lab,
21 and I looked at it and thought I might apply.

22 Q. Were you given any sort of -- other than the
23 job description, did they describe any sort of
24 manual or mission statement when you were hired as
25 to what tasks you should be performing?

1 A. No.

2 Q. Were you told by anyone what it was that they
3 hoped you would accomplish?

4 A. They hoped I would do basic scientific
5 research on the psychophysiology of smoking.

6 Q. Were you told what they intended to do with
7 your research?

8 A. I was told the research was to be published
9 in the scientific literature, that that was the
10 target goal.

11 Q. Were they -- did they tell you that they
12 hoped to use your research to improve their
13 product?

14 A. No.

15 Q. Did they tell you that they hoped to use your
16 research in understanding their product?

17 A. I think the goal was to achieve a scientific
18 understanding of smoking, and publish that in the
19 scientific literature.

20 Q. Were you ever told that any aspect of your
21 goals was to understand the health consequences of
22 smoking?

23 A. No.

24 Q. Within your division, was there anyone that
25 was in charge of research to help understand the

1 health consequences of smoking?

2 A. Could you be more specific what you mean by
3 my division?

4 Q. Well, it changed over time, but specifically
5 in the biochemical or biobehavioral division.

6 A. There were, as I said, toxicologists in
7 Bio-Bio who were working on the biological activity
8 of -- our Premier cigarette, at the time, I
9 believe, was the main project.

10 Q. But were there toxicologists working on the
11 health consequences of the company's products,
12 other than Premier?

13 A. The toxicologists I knew, no. They were
14 focused on Premier. Whether they did anything with
15 other, you know, conventional tobacco brand
16 cigarettes, I really don't know. I wasn't involved
17 in toxicology research, so ...

18 Q. During -- from '86 to the present, who was
19 head of toxicology?

20 A. Well, like I said, there -- there used to be
21 in Bio-Bio three, four, maybe, divisions that all
22 had the word toxicology in them. I can't remember.
23 I don't know what they were.

24 Q. Who was the head of those three or four
25 divisions?

1 A. Wallace Hayes was the head of Bio-Bio. The
2 heads of the divisions, I believe Gary Burger
3 headed one.

4 Q. How would the four Bio-Bio divisions
5 communicate with your division?

6 A. We really didn't communicate. My -- It was
7 an artificial organizational entity that -- you
8 know, I -- I'd see them at the annual Christmas
9 party.

10 Q. Well, were they in a different building?

11 A. Yes, they were.

12 Q. What building were they in?

13 A. They were in 611 -- I believe it's
14 designation is 611-1. We referred to it as the
15 toxicology palace, because they built that
16 specifically so those guys would have, I guess,
17 more room. We were getting a little crowded then.

18 Q. And there was no communication back and forth
19 between the toxicology divisions or departments and
20 your department?

21 A. No, I didn't say there was no communication.

22 Q. No formal communication.

23 A. We were -- we were working in just such
24 different scientific areas. You know, if we'd meet
25 in the hall or something we might talk a little

1 bit. We might have a -- have had -- you know, I'm
 2 a little vague in my memory here.
 3 Q. Wouldn't there have been even an annual
 4 meeting to just summarize --
 5 A. That's what I was just going to say. We may
 6 have had a annual get-together where everybody gave
 7 a brief summary of what they had done for the past
 8 year.
 9 MS. FEE: Jack, is this a good time
 10 to take a break? We've been going about an hour
 11 and 15 minutes.
 12 MR. MAISTROS: Whatever you want.
 13 VIDEOGRAPHER: We're going off the
 14 record at 11:13 a.m.
 15 (RECESS TAKEN FROM 11:13 A.M. TO 11:27 A.M.)
 16 VIDEOGRAPHER: We're going back on
 17 the record at 11:27 a.m.
 18 BY MR. MAISTROS:
 19 Q. Mr. Pritchard, when you used the phrase
 20 Bio-Bio, is that your shorthand for biochemical and
 21 biobehavioral division?
 22 A. Yes, it is.
 23 Q. And between 1986 and the present, is it your
 24 understanding that any product research having to
 25 do with RJR would be done in-house as opposed to

1 being contracted out?

2 MS. FEE: Object to the form.

3 THE WITNESS: I really have done
4 hardly any product research. I really don't know.

5 BY MR. MAISTROS:

6 Q. Well, maybe "project" was the wrong term.
7 Just research on RJR products. That is, tobacco,
8 cigarettes. Is it your understanding that any
9 RJR -- research on RJR products would have been
10 done in-house as opposed to being contracted out?

11 A. Yes.

12 Q. Do you know if -- let me start over. Did you
13 ever undertake any research where you worked with
14 other scientists from other tobacco companies?

15 A. No.

16 Q. Do you know if anyone within Bio-Bio, during
17 the years you've been employed, did such research?

18 A. To my knowledge, no one did such research.

19 Q. Have you ever attended any conferences with
20 scientists from other tobacco companies to compare
21 the research you were doing?

22 A. No.

23 Q. Do you know if there's any Dr. Pritchards or
24 comparables working for other tobacco companies
25 that are doing the type of research you're doing?

1 A. I have no idea.
2 Q. Is there any entity out there doing the type
3 of research you're doing that's not related to a
4 tobacco company? To your knowledge.
5 A. "Entity". Explain what you mean by "entity".
6 Q. Is there any person or group of people that
7 are doing the type of research you're doing that
8 are not related to a tobacco company?
9 A. There are people in the academic sector who
10 do this type of research.
11 Q. Who are the leading people, in your opinion,
12 that do this type of research, outside of the
13 tobacco company?
14 A. I would say Jed Rose of Duke, Ed Levin at
15 Duke also.
16 Q. And is that physiology of tobacco? What is
17 it?
18 A. Well --
19 Q. When I said "similar," what's your
20 understanding of what I meant?
21 A. Well just, you know, scientific research on
22 human smoking.
23 Q. Why people smoke?
24 A. I think Rose, for example, is interested in
25 the sensory aspects of cigarettes. He claims to be

1 the inventor of the nicotine patch; I really don't
2 know.

3 Q. Has anyone, to your knowledge, at RJR ever
4 done any research on the nicotine patch?

5 A. No.

6 Q. How about on nicotine gum?

7 A. No.

8 Q. Have you reviewed any documents in
9 preparation for your deposition today?

10 A. Have I reviewed any documents? I re-read
11 some of my papers, recent papers.

12 Q. Do you remember which ones?

13 A. I re-read the neuropsychobiology paper. I
14 re-read the -- I re-read, I think, the latest two
15 that I've had published in Psychopharmacology. I
16 think, the latest one that I published in
17 Psychophysiology.

18 Q. Anything else?

19 A. No.

20 Q. Were you told of anything that transpired in
21 yesterday's deposition?

22 A. It was described to me as being
23 confrontational, or something like that.

24 Q. I'm talking about deBethizy.

25 A. I'm sorry?

1 Q. DeBethizy; is that his name?
 2 A. DeBethizy.
 3 Q. DeBethizy? That was confrontational?
 4 A. That's what I was told.
 5 Q. Who told you that?
 6 A. Counselor Fee.
 7 Q. Were you told any of the substance of what
 8 was said in the deposition?
 9 A. She outlined, in general, the line of
 10 questioning in a couple of the points in the
 11 deposition.
 12 Q. Did she tell you any areas that she would
 13 like you to avoid getting into if I asked questions
 14 concerning it?
 15 A. The only thing she's told me repeatedly is to
 16 tell the truth.
 17 Q. Did you talk to Dr. deBethizy?
 18 A. When?
 19 Q. After his deposition.
 20 A. No.
 21 Q. Did anyone outside of counsel give you any
 22 instructions for this deposition?
 23 A. No.
 24 Q. Did you review any depositions of any other
 25 witnesses?

1 A. No.
2 Q. Have you ever been interviewed prior to this
3 deposition about your work? I mean, interviewed --
4 A. Didn't you ask me that already?
5 Q. I may have. I'm talking specifically,
6 though, interviewed such as what do you do for RJR
7 or what's the scope of your work?
8 A. No.
9 Q. And I know you went through your educational
10 background. Can you tell me what degrees you
11 obtained at these various universities?
12 A. Ohio State I got a BA.
13 Q. Did you major in anything?
14 A. Psychology. And at Cal State I got an MS,
15 psychology. And Cincinnati is a Ph.D.
16 Q. Do you hold any licenses of any nature?
17 A. No.
18 Q. What type of employment did you have after
19 college?
20 A. Excuse me?
21 Q. What type of employment did you have after
22 college?
23 A. After college?
24 Q. Yes. After undergraduate.
25 A. I worked for a while as a cashier in Allstate

1 Insurance cafeteria in Los Angeles.
 2 Q. Okay. How about after that?
 3 A. I went to grad school.
 4 Q. Did you work during grad school?
 5 A. I was a teaching assistant.
 6 Q. How about after that?
 7 A. I went to grad school in Cincinnati.
 8 Q. Did you work?
 9 A. I was, again, a teaching assistant.
 10 Q. How about after that?
 11 A. I was a post doc at the University of
 12 Illinois.
 13 Q. Did you work?
 14 A. I was a post doc, University of Illinois.
 15 Q. That is a job, then?
 16 A. Yes.
 17 Q. How about after that?
 18 A. I was an assistant professor at SEMU.
 19 Q. Where is that?
 20 A. Southeast Missouri State University.
 21 Q. And after that?
 22 A. I was an assistant professor, psychiatry,
 23 University of Texas, Medical Branch, Galveston.
 24 Q. And after that?
 25 A. I went to work for R.J. Reynolds Tobacco

1 Company.
2 Q. Was there ever an occasion where somebody
3 above you says, "Dr. Pritchard, we'd like you to do
4 research in this area as opposed to you coming up
5 with ideas for research"?
6 A. No.
7 Q. So all of your research from '86 to the
8 present, at least the projects, have originated
9 with you?
10 A. The 90 percent basic research that I do, yes.
11 Q. How about the 10 percent?
12 A. From time to time, I've been involved in a
13 minor role in product development projects.
14 Q. What role? Premier, for example?
15 A. Not Premier.
16 Q. What role?
17 A. I would provide measures, say, of personality
18 and analyze those data.
19 Q. Do you remember specific projects that you
20 did that on?
21 A. There was a project called -- I believe it
22 was called HSB.
23 Q. Do you know what that stands for?
24 A. Human Smoking Behavior.
25 Q. Who was in charge of that project?

1 A. I don't know. I don't remember.
2 Q. What division was that?
3 A. It was a cross-division national study.
4 Q. In layman's terms, why people smoke?
5 A. It was a study trying to -- as I understood
6 the long -- the ultimate goal of HSB, it was to
7 come up with a cigarette with a smooth taste that
8 could compete with Marlboro.
9 Q. And what year did you help out on that
10 project?
11 A. Oh, God. That must have been '87, '88.
12 Q. What was your role in that project?
13 A. They wanted to collect personality data from
14 this large national sampling of smokers that we had
15 tested. So I knew something about that area,
16 provided the forms for the respondents to fill out.
17 Actually, we published that data. That
18 was a journal I forgot to mention before,
19 Personality and Individual Differences. So the
20 personality data from that actually were published
21 in the scientific literature also.
22 Q. What was the title of it?
23 A. The title -- the journal was Personality and
24 Individual Differences. I'm not sure I could give
25 you the title of the paper verbatim.

1 Q. Now the data you collected, was that from
2 Marlboro smokers or the general smoking population?

3 A. I don't know exactly what the sample -- how
4 it was determined.

5 Q. And what was your specific task in analyzing
6 the data?

7 A. The personality forms would have a scoring
8 key that you would get a score for, say, how
9 extroverted this individual was.

10 Q. Were there scientists other than yourself
11 that were working on the non-behavioral aspects of
12 this project?

13 A. There were a lot of people working on that
14 project.

15 Q. What ever happened to that project?

16 A. I don't know.

17 Q. Do you know if any papers were written
18 summarizing the project?

19 A. I don't know.

20 Q. Was there an individual in overall charge of
21 the HSB project?

22 A. I'm sure there was. I don't -- I couldn't
23 tell you who among the people it was, though.

24 Q. Do you remember specifically what the results
25 of your data indicated?

1 A. We found a pattern of personality in smokers
2 that had replicated previous reports.

3 Q. Give me an example.

4 A. Smokers tend to be -- on these scales, tend
5 to be more extroverted, as a whole, than
6 nonsmokers.

7 Q. Anything else?

8 A. They tend to be more anxious or neurotic, as
9 a whole.

10 Q. Anything else?

11 A. As I said before, they tend to be more
12 impulsive.

13 Q. Now, wasn't there literature -- I'm not
14 holding you to the date, let's say it was '87, if
15 it was the date this project was going on. Wasn't
16 there sufficient literature at that time so that I
17 could go to the library and pick out those traits
18 of smokers?

19 A. Well, one of the essential aspects of science
20 is replication of findings, so ...

21 Q. So your -- your aspect of your involvement
22 duplicated previous research that showed these
23 patterns in smokers?

24 A. These -- the scores were relative to
25 nonsmokers as a whole. We didn't -- you know --

1 Q. Did you learn anything new as a result of
2 that research?

3 A. Well, as I said, replicating previous
4 research is -- is a way of verifying newness, if
5 you will.

6 Q. Was there anything in your study that you
7 could identify would be particularly different or
8 interesting compared to previous studies, similar
9 studies?

10 A. I thought it was interesting.

11 Q. The results were interesting?

12 A. They were interesting enough to get
13 published.

14 Q. Were there any new findings, if you will, as
15 a result of your study?

16 A. One -- yes. Yes.

17 Q. What was that?

18 A. We found that -- there was also a
19 questionnaire on smoking motivation. And it had
20 several scales. And smokers appeared to -- versus
21 another large sample that had been published
22 several years earlier, the motivation appeared to
23 be stronger in the new sample.

24 Q. What do you mean by "motivation"?

25 A. The motive that: I like to smoke because it

1 reduces my anxiety. I like to smoke because it
2 makes me feel more mentally alert.

3 Q. There was a stronger finding that that was
4 the case in your study?

5 A. There were differences between the two
6 samples, so you have to treat the results with
7 caution; I mean, demographic and geographic
8 differences. But it appeared that the scores on
9 those types of smoking motivation questions were
10 higher.

11 Q. Now, I understand that you don't individually
12 get involved in the toxicology aspects; is that
13 correct?

14 A. That's right.

15 Q. Have you read any of the toxicology studies,
16 though, to see how they might affect what you were
17 doing?

18 A. I have not read a toxicology study, no.

19 Q. Have you read any studies of RJR on any
20 biological effects that tobacco might have on
21 humans?

22 A. I've read my own studies.

23 Q. Other than your own studies.

24 A. I'm familiar with some of the work that
25 Dr. Lippiello has done with nicotine receptor

1 pharmacology.

2 Q. When you say you're familiar with it, have
3 you read his -- some of his papers?

4 A. I don't think I've read paper from beginning
5 to end. I might have read the abstract. It has a
6 lot of terms that I'm not familiar with. It's not
7 my area.

8 Q. God, I feel so good.

9 The nicotine receptor research that
10 Dr. Lippiello was doing, do you believe as a
11 scientist that that has any play in the research
12 you were doing or impact on the research you were
13 doing?

14 A. No. He was looking at a very molecular level
15 of the system, binding of molecules to proteins
16 and, you know -- I was looking at EEG and behavior,
17 a very high level in the system.

18 Q. Scientifically, is there a term that would
19 describe what he was doing versus what you were
20 doing?

21 A. He was doing nicotine receptor pharmacology,
22 is the way I understand the term.

23 Q. Did you ever sit down with Dr. Lippiello and
24 say, "Hey, do you think there's any connection
25 between this higher level of motivation and the

1 work that you're doing, Dr. Lippiello?

2 A. We'd talk about is there any way to translate
3 from this low level to high level, or vice versa.
4 But they were just so far apart, we never came up
5 with any -- any ideas, you know.

6 Q. Did you ever do any research to determine if
7 there was any connection or association between the
8 nicotine levels in cigarettes and the motivation of
9 smokers?

10 A. No.

11 Q. Do you know if anyone at RJR did such
12 research?

13 A. Not to my knowledge.

14 Q. What's your understanding of the
15 pharmacological reasons that people smoke tobacco?

16 MS. FEE: Object to the form.

17 MR. MAISTROS: You can answer,
18 until she tells you not to answer.

19 THE WITNESS: Okay. Sorry. Could
20 you repeat the question.

21 MR. MAISTROS: You can read back
22 the question.

23 (WHEREUPON, THE QUESTION WAS READ BACK BY THE COURT
24 REPORTER AS FOLLOWS:

25 What's your

1 understanding of the
2 pharmacological reasons that
3 people smoke tobacco?)

4 THE WITNESS: Nicotine has a mild
5 pharmacological effect that people can report as
6 they're feeling calmer or less anxious, less
7 stressed. If they're in a monotonous or boring
8 situation, they can report that it makes them feel
9 more mentally alert.

10 BY MR. MAISTROS:

11 Q. Do you know if there's been studies done at
12 RJR that relate the level that nicotine relieves
13 anxiousness with the amount of nicotine in the
14 cigarette?

15 A. When you say "amount of nicotine in the
16 cigarette," are you referring to its FTC --

17 Q. Well, let me be more specific. I don't want
18 to limit it to -- well, in fairness to you, I
19 better describe it.

20 Let's assume, for purposes of that
21 question, that I'm talking about the nicotine
22 that's released in the human body upon smoking.

23 A. Uh-huh.

24 Q. Do you know if there's been any studies done
25 to determine if there's a relationship between the

1 amount of nicotine that's released in the human
2 body and the degree to which people believe it
3 makes them less anxious?
4 A. "Released in the human body." You're
5 referring to --
6 Q. Affecting the human body, in layman's terms.
7 A. A study of the amount of release -- release
8 from -- or effect --
9 Q. I don't want you to get hung up on how it's
10 released. I just want a general understanding of
11 do you know if studies have been done that have
12 researched, interpreted data to see if there's a
13 connection between the amount of nicotine, once a
14 person smokes a cigarette, and the degree to which
15 they believe --
16 A. I see what you're saying.
17 Q. -- it lessens their anxiety?
18 A. Yes. Yes.
19 Q. Who would have done those studies?
20 A. I did a study along those lines, and it
21 resulted in two publications in the scientific
22 literature.
23 Q. What two publications?
24 A. The one in Neuropsychobiology. And there
25 was -- that was '95. And there was one in

1 Psychophysiology, also in '95 -- I'm sorry -- I'm
2 sorry. Psychopharmacology.

3 Q. And give me the abstract version of what
4 those two studies concluded.

5 A. It was one study, but it had such a large
6 volume in data that we published it as two -- we
7 sort of divided the one. So you want an abstract
8 of each paper --

9 Q. Yes.

10 A. -- is what you're asking for.

11 We had data from that study on blood
12 nicotine levels. We measured EEG, we measured
13 feelings of anxiety, anger, mental alertness,
14 muscular tension. We measured heart rate. We
15 measured a lot of stuff having to do with the taste
16 of the cigarette, 'cause one of the goals of the
17 study was to assess the -- in fact, one of the
18 titles of one of the publications was Assessing the
19 Sensory Role of Nicotine in Cigarette Smoking.

20 We asked questions about -- well, as I
21 said, taste and the concern with how strong the
22 taste of cigarette was, how harsh the cigarette
23 was, how easy the draw was through the filter, that
24 they perceived it was easy to draw or not. Tobacco
25 taste, strong taste, whether there was aftertaste.

1 Which areas of the respiratory tract they felt
 2 particular sensation in: The chest, the throat,
 3 the mouth, the nose. How much they wanted to smoke
 4 a cigarette at that moment. It was a lot of
 5 measures.
 6 Q. I assume these are human studies?
 7 A. Yes.
 8 Q. We haven't developed that rat yet that can
 9 tell you that.
 10 A. I'm allergic to rats. I don't go near them.
 11 Q. These studies, I assume, were of smokers.
 12 A. Yes. Of course.
 13 Q. How do you -- how do you study the data that
 14 you collect from these smokers and compare it to
 15 nonsmokers?
 16 MS. FEE: Object to the form.
 17 BY MR. MAISTROS:
 18 Q. Do you?
 19 A. In that study we didn't have any nonsmokers.
 20 Q. So any conclusions that your studies reached
 21 concerning relieving anxiety, stress, anger, muscle
 22 tension, were of smokers?
 23 A. Those two studies were of regular cigarette
 24 smokers, yes.
 25 Q. Have you a process or a method by which you

1 could compare the effects of tobacco with respect
2 to anxiety, anger, muscle tension on nonsmokers?

3 A. We would never have nonsmokers smoke
4 cigarettes, if that's what you're asking.

5 Q. I guess what I'm asking -- I mean, your
6 studies reveal interesting information on the
7 effects of tobacco on anxiety, stress, et cetera.
8 But how do you ever sleep at night, knowing whether
9 or not those same effects would be produced on a
10 nonsmoker?

11 A. Well, there are reports in the literature.
12 We're not -- we're not really set up to do gum
13 studies; you asked me about gum studies before.
14 There are studies in the literature where people
15 have used nicotine gum or placebo gum in
16 nonsmokers. And you find the same effects,
17 basically.

18 Q. But -- I mean, as you sit here today, you
19 couldn't tell me if a nonsmoker could have his
20 anxiety/anger levels reduced by smoking cigarettes?

21 MS. FEE: Object to the form.

22 THE WITNESS: Counselor, I would
23 never ask a nonsmoker to smoke a cigarette. So I
24 couldn't answer the question. It really -- it
25 would be an unethical experiment.

1 BY MR. MAISTROS:
 2 Q. Why is that?
 3 A. Because you don't want to -- it's just the
 4 institutional review board wouldn't -- you know,
 5 the review board wouldn't approve of having
 6 nonsmokers come in and smoke.
 7 Q. Why would that be?
 8 A. Well, let's say they were an ex-smoker. You
 9 wouldn't -- probably wouldn't want them to start
 10 again. I mean, you know, smoking is a health risk,
 11 and we take that into account. Everybody knows it.
 12 Q. What type of health risk is it?
 13 A. Oh, it's a -- it increases your risk of lung
 14 cancer, heart disease.
 15 Q. When did you first learn that?
 16 A. Oh, when I was a kid I heard people talking
 17 about smoking being risky. On a scientific basis,
 18 I don't remember.
 19 Q. Do you smoke?
 20 A. No.
 21 Q. Have you ever?
 22 A. Yes.
 23 Q. What years?
 24 A. I smoked -- oh, when I was about 16,
 25 probably, till about two years ago.

1 Q. Why did you quit?
 2 A. I was concerned about the health risks of
 3 cigarette smoking.
 4 Q. What brand did you smoke?
 5 A. I used to smoke Camels. Then, when we came
 6 out with the Premier cigarette, I switched to
 7 those.
 8 Q. Then you went back to Camels?
 9 A. No. I quit. We got the Premiers for free
 10 and the supply ran out. So I quit.
 11 Q. What years did you smoke Premier?
 12 A. Oh. Premier was around the late '80s till
 13 when I quit.
 14 Q. '89?
 15 A. Yeah. Ballpark.
 16 Q. You quit in '95?
 17 A. It was about two years ago.
 18 Q. What years did RJR market Premier?
 19 A. R.J. Reynolds test marketed Premier, but it
 20 was a failure in test market. Smokers -- although,
 21 you know, it did yield nicotine, they didn't like
 22 the taste, they didn't like the different ritual
 23 associated with Premier, I guess, is my
 24 understanding.
 25 Q. Do you know how many years they test marketed

1 it?

2 A. I don't even think it was years. I think it
3 was less than a year. I don't know.

4 Q. But they had supplies for employees that at
5 least lasted till '95?

6 A. Yes. Yes.

7 Q. And why did you switch to Premier?

8 A. Because Premier had drastically reduced
9 biological activity. And I thought that was a good
10 thing.

11 (DISCUSSION OFF THE RECORD)

12 BY MR. MAISTROS:

13 Q. What do you mean by "drastically reduced
14 biological activity"?

15 A. It produced much less, you know, Ames
16 activity. The Ames test is the one I happened to
17 know the name of. There's a lot of toxicological
18 screenings that -- you know, I understand -- it --
19 well -- and then I guess we put out a monograph - I
20 know you're familiar with that - outlining all the
21 research. So that's what I mean.

22 Q. Did you contribute to the monograph?

23 A. No, I did not.

24 Q. The employees, did they have to pay for
25 Premier?

1 A. No.

2 Q. And it's your understanding that when the
3 supplies ran out, RJR in no fashion produced more
4 Premier or a similar Premier?

5 A. My understanding is the machines that made
6 the aluminum capsules, et cetera, were all
7 dismantled. RJR had moved on to the Eclipse
8 cigarette at that point.

9 Q. So you smoked Premier for about six years?

10 A. Well, let's see. I'd say that's ballpark,
11 yeah.

12 Q. Individually, did you find as much enjoyment
13 from Premier as Camels?

14 A. No. It was a trade-off. It really didn't
15 taste like a cigarette.

16 Q. And you said, although it had nicotine, it
17 was a failure. Did you -- why did you view
18 nicotine as even a factor?

19 MS. FEE: Object to the form.

20 THE WITNESS: To me, smoking is a
21 package, a ritual of lighting the cigarette, the
22 taste of the cigarette, and mild nicotine
23 pharmacology. Premier was sorely lacking in the
24 taste and ritual departments, and that's why it was
25 a big flop in the test market, unfortunately.

1 BY MR. MAISTROS:

2 Q. Now, is ritual and lighting the same thing?

3 A. Well, the main problem with Premier,
4 ritualwise, is it didn't burn down. It stayed the
5 same length the entire time you were smoking it.
6 Which, of course, is drastically different than the
7 normal ritual that, you know, it burns down and you
8 have to flick ashes off it.

9 Q. You mentioned, though, ritual, and you said
10 lighting in the same breath. Is that --

11 A. Lighting is part of the -- lighting, the
12 burn-down of the cigarette, the flicking of the
13 ashes, the manipulation of the cigarette, maybe
14 blowing smoke rings; you know, these are all things
15 associated with the ritual of smoking.

16 Q. And is it fair to say that, at least your
17 understanding, if you had the pie of universe of
18 why people smoke, would you put ritual, taste and
19 the pharmacological aspects in that pie, or is
20 there other stuff?

21 A. I would say, in my opinion, the three
22 important players are the -- the taste of the
23 cigarette -- and stuff related to the taste. It
24 has to have a good draw to the smoker. The ritual
25 involved in smoking the cigarette, and then mild

1 nicotine pharmacology.

2 Q. Okay. And --

3 A. It's a package.

4 Q. Without taking you to task in the future on
5 your percentages, could you assess percentages to
6 those three aspects?

7 A. No. Because one of the -- one of the
8 papers -- we were talking about the two papers
9 before. We tried to statistically separate out
10 blood nicotine rise, all these taste variables and
11 measures of how acceptable the product was. And it
12 was a package; you couldn't separate them out
13 statistically.

14 Q. So --

15 A. So I can't give you a percentage, no.

16 Q. Is there -- have there been studies done by
17 you or others that would suggest that you could
18 eliminate or reduce ritual, taste, or the
19 pharmacological aspects and still sell a successful
20 cigarette?

21 A. Well, we -- Premier had a pretty poor taste
22 and a much different ritual, and it was -- didn't
23 sell well.

24 Q. Were there studies --

25 A. I certainly know about that. That wasn't a

1 study, that was just a fact of test marketing
2 failure. And --

3 Q. Did you see studies, actually written
4 studies, to determine why Premier was a failure?

5 A. No. It was just the -- the scuttlebutt
6 around the building was, you know: Hey, it's not
7 doing well. It's not doing well.

8 And then the company announced it was
9 withdrawing Premier.

10 Q. Do you know what individual I would talk to
11 that would have the most knowledge of Premier?

12 A. Again, not being involved in those studies,
13 I -- I would just refer you to Gary Burger, being
14 the head of R & D, who could put you in touch with
15 whomever that person might be. It was -- it was a
16 large effort with a lot of people, and I don't know
17 who technically was in charge or, you know, at what
18 point.

19 Q. What do you mean when you say that the
20 tobacco has a mild pharmacological aspect to it?

21 A. Well, people report, for example, if they're
22 tense or anxious, that they feel calmer after they
23 smoke. If they're in a situation where they're
24 doing, say, boring or repetitive type work, they'll
25 say: It helps me concentrate; it helps me pay

1 attention; I feel more mentally alert.

2 Q. Did you experience that when you were
3 smoking?

4 A. Yes. I'd have to say I did.

5 Q. And did you have the same experience with
6 Premier? Talking about just the calmer aspect.

7 A. I'm not sure. I really -- that's a hard one
8 to call. Because the taste kept getting in the
9 way, you know. It just didn't taste like a
10 cigarette. You know. And it -- it was
11 detrimental. I mean, you know, my experience there
12 wasn't unique; apparently other consumers who tried
13 it had the same experience; you know, just taste
14 and ritual were way off, you know.

15 Q. Did the health concerns that you had when you
16 switched to Premier, did you read about those? Did
17 somebody tell you about those? Is that just your
18 common knowledge? What was that based on?

19 MS. FEE: Object to the form.

20 THE WITNESS: I don't remember
21 where I specifically read a summary in the news
22 magazine or when that was about, you know, the
23 increased risks from smoking.

24 BY MR. MAISTROS:

25 Q. And what was your specific understanding as

1 to how Premier would reduce those risks?

2 A. It had -- the toxicologists use a term called
3 "biological activity" to refer to these screens
4 like this Ames test. And Premier, on all these
5 tests, had much less activity than a conventional
6 tobacco-burning cigarette.

7 VIDEOGRAPHER: Mr. Maistros, we
8 have five minutes left on the videotape.

9 MR. MAISTROS: Okay.

10 BY MR. MAISTROS:

11 Q. Now, the toxicologists in the world or RJR
12 toxicologists refer to "biological activity"?

13 A. I don't know.

14 Q. Is there something that is related to
15 biological activity that I, as a lawyer, would
16 understand what that meant?

17 A. It involves the ability to mutate DNA. Do
18 you know what DNA is? I'm sure you do. Okay.

19 To mutate DNA, you know, to do stuff to
20 the genetics of the -- of a cell of some type.

21 Q. And it was your understanding -- was it the
22 major reason you started smoking Premier, was that
23 there was drastic reductions in the biological
24 activity?

25 A. Yes. Yes.

1 Q. Did you --
 2 A. I'll be honest, the fact that we got them
 3 free was a -- you know, played a role. I'll have
 4 to be honest with you.
 5 Q. Were you allowed to smoke while you worked at
 6 RJR?
 7 A. Yes.
 8 Q. Do you still today?
 9 A. Yes. There -- there are OSHA regulations
 10 that you can't smoke in certain parts of the
 11 building. But other than those, you can smoke.
 12 Q. And when Premier was introduced, were any of
 13 the regulations relaxed in any fashion?
 14 A. The OSHA regulations?
 15 Q. Yes.
 16 A. I don't know.
 17 Q. At least at RJR, did any of the restrictions
 18 on where you could smoke change?
 19 A. There were -- other than OSHA regulations,
 20 I'm not aware there were any restrictions.
 21 Q. Do you know on the --
 22 MR. MAISTROS: Maybe this would be
 23 a good time to take a break, since we're going to
 24 be running out of tape anyway.
 25 VIDEOGRAPHER: We're going off the

1 record at 12:08 p.m. We're off the record.

2 (LUNCH RECESS WAS TAKEN FROM 12:08 P.M.

3 TO 1:00 P.M.)

4 VIDEOGRAPHER: This is tape number

5 2 of the videotape deposition of Walter S.

6 Pritchard, Ph.D. We're going on the record at

7 1:00 p.m.

8 BY MR. MAISTROS:

9 Q. Mr. Pritchard, I want to return, if I could,
10 a moment, to ask you about the structure of RJR
11 research and development. I'm going to give some
12 titles that were used in yesterday's deposition for
13 various divisions and ask you if you're familiar
14 with where they stand in the hierarchy, research
15 and development.

16 Psychophysiology; is that a department
17 you're aware of?

18 A. That's the department I work in, as I said
19 this morning.

20 Q. That department, though, exists today under
21 R & D?

22 A. Yes, it does.

23 Q. Did it exist under R & D in 1986?

24 A. No, it did not.

25 Q. Is there a pharmacy or a pharmacological

1 department?
2 A. No.
3 Q. How about toxicology department?
4 A. I'm aware that there's a genetic toxicology
5 department.
6 Q. Who heads that?
7 A. David Doolittle.
8 Q. Now, yesterday Doolittle was described as
9 being in charge of the biological research
10 department. Have you heard of that department?
11 A. We had a biological research division that
12 isn't -- that deBethizy headed. It's no longer --
13 it may be; I don't know. I always thought his --
14 name of his division was genetic toxicology -- or
15 genetic and molecular toxicology.
16 Q. What does Mosberg do?
17 A. I don't know. He's a toxicologist; I don't
18 know specifically what he does.
19 Q. How about Lippiello? What division or
20 department is he in?
21 A. He's the manager of -- I'm not sure what the
22 formal name is. Receptor pharmacology. That's
23 just a guess. I don't know.
24 Q. Is there a chart that actually shows all
25 these divisions and departments so I don't have to

1 guess and you don't have to guess? Do you know, is
 2 there such a chart?
 3 A. I don't know.
 4 Q. Would Mr. Reynolds have knowledge of all the
 5 various divisions and breakdowns within R & D?
 6 A. Mr. Reynolds?
 7 Q. Yes. Is there a Mr. Reynolds you're aware
 8 of?
 9 A. John Reynolds, are you referring to?
 10 Q. Yes. Yes.
 11 A. I don't know.
 12 Q. Now, is research and development, as a
 13 division or department, separate from marketing?
 14 A. I believe it is.
 15 Q. Is there any communication between, say,
 16 research and development and marketing on a formal
 17 basis?
 18 A. I don't know.
 19 Q. Do you communicate with marketing?
 20 A. No.
 21 Q. Do you ever have annual meetings where, say,
 22 research and development gets together with
 23 marketing?
 24 A. No.
 25 Q. Have you ever read any studies that marketing

1 did on cigarette smoking?
 2 A. No.
 3 MS. FEE: Object to the form.
 4 BY MR. MAISTROS:
 5 Q. Have you ever been asked by marketing to
 6 perform any research?
 7 A. I don't know whether marketing was involved
 8 in any way in this HSB study. I've not been asked
 9 by anybody in marketing to do anything.
 10 Q. Have you heard of the W. S. Richert Company
 11 or Labstat?
 12 A. No.
 13 Q. When you do your research, what cigarettes do
 14 you use?
 15 A. Generally -- to tell you the truth, we
 16 usually -- our prime one is Marlboro.
 17 Q. Why is that?
 18 A. Because there's a lot more Marlboro smokers
 19 in the U.S. than there are, say, Winston smokers.
 20 And you want your subject, I think, to be
 21 comfortable with the cigarette that he or she is
 22 smoking, so ...
 23 Q. Well, do you ever do studies where you just
 24 say to the subjects, "What do you smoke?" And then
 25 you give them those cigarettes?

1 A. No. We'd have to have a supply on hand of
2 all the different brands.

3 Q. Well, if I'm a Cool smoker and I come in and
4 do research with you and you ask me to smoke
5 Marlboros, isn't that going to potentially skew
6 your results?

7 A. We would have -- we would recruit -- for the
8 study, we would recruit Marlboro smokers.

9 Q. And where do you recruit them from?

10 A. They're recruited from the local community.

11 Q. Are there ads placed in papers or ...

12 A. There may be. I don't do the recruiting.

13 Q. Is there a pool of people that you do
14 research on that you use repeatedly or ...

15 A. I believe in some studies subjects have -- I
16 believe I've had subjects that were in more than
17 one of my studies. Generally, no.

18 Q. Now, although you generally use Marlboro
19 cigarettes in your research, do you actually use
20 RJR cigarettes?

21 A. We have, yes.

22 Q. Why would you use RJR for a particular
23 project as opposed to Marlboro?

24 A. I believe one of the studies where we used
25 the light category of cigarette we used Camel Light

1 smokers. It was -- it was an arbitrary choice, you
2 know.

3 Q. When you're doing your particular research,
4 is it important to you to know the chemical makeup
5 of a cigarette?

6 A. No.

7 Q. It's not important for you to know, for
8 example, the tar and nicotine content?

9 A. I know the tar and nicotine yields of the
10 cigarette.

11 Q. How do you know that?

12 A. The FTC publishes numbers or there are --
13 there is an FTC method for determining them.

14 Q. Do you find that the FTC -- the yield numbers
15 are accurate?

16 A. The FTC numbers are to compare cigarettes
17 relatively. I've never assessed the accuracy.

18 Q. Are you aware of any studies done at RJR to
19 assess the accuracy of the FTC yields?

20 A. They have done studies actually measuring the
21 way people puff on cigarettes. I don't know
22 whether they've, with that data, compared them to
23 the FTC yields.

24 Q. Do you ever, before you -- well, back --
25 back up.

1 The research that you do, it's not
2 important for your research to understand, say, the
3 nicotine yield of a particular cigarette?

4 A. Yes, it is.

5 Q. And why is that important?

6 A. Because the nicotine yield is -- we found,
7 for example, that a full flavored cigarette will
8 produce a change in blood nicotine level around 15
9 nanograms per mill of blood.

10 Q. And what is your understanding of "full
11 flavor cigarette"?

12 A. I understand full flavor cigarette to be one
13 in the ballpark of a 1.0-milligram nicotine yield.

14 Q. In layman terms, is full flavor comparable to
15 higher nicotine?

16 A. Well, a full flavor cigarette has a higher
17 nicotine yield than a light cigarette.

18 Q. And when I use the term "nicotine yield," or
19 you just used it, are you talking about in its
20 natural state as it's burned, as it's taken into
21 the body --

22 A. I'm talking about as determined by the FTC
23 method.

24 Q. Have you ever sent out cigarettes to have
25 them tested for nicotine yield, independent of what

1 the FTC may say about the nicotine yield?

2 A. No.

3 Q. Have your studies that you've either
4 initiated or been involved in focused upon the
5 effect that the level of nicotine has on smoking
6 behavior?

7 A. Define "smoking behavior" for me, please.

8 Q. Let's say, have you done any research to
9 determine if there is a correlation between the
10 level of nicotine in a cigarette and the motivation
11 of a smoker?

12 A. "The level of nicotine in the cigarette."
13 Are you referring to the nicotine content of the
14 tobacco or to the nicotine yield?

15 Q. Yield.

16 A. Have we looked at -- repeat the question in
17 terms of yield.

18 Q. Have you ever done any studies to determine
19 if there is a correlation between nicotine yield,
20 as you just stated it, and the motivation of a
21 smoker, as you described earlier?

22 A. No. Not that I recall.

23 Q. Have you ever done any studies to determine
24 how it is that nicotine interacts with the body?

25 A. Yes.

1 Q. What percentage of your work would you say is
2 focused on that?

3 A. Well, how it interacts with the body, yes, in
4 the context of does it produce brain wave and heart
5 rate changes. Those specific mechanisms by which
6 it does that, I haven't done much, you know.
7 Nothing, really.

8 Q. You leave that to the receptor scientists?

9 A. Well, I suspect there -- there's something
10 going on in the nervous system between this
11 receptor level and the higher level where I'm
12 working, affecting, you know, neurotransmitters or
13 something. I don't know.

14 Q. You -- you take as an assumption that
15 nicotine affects brain wave and heart rate, for
16 example -- or heart wave, without having to
17 understand why that's so, when you do your
18 research?

19 A. We can measure brain wave and heart rate
20 activity, and it is affected by nicotine.

21 Q. But you don't get into -- not that there's
22 anything wrong with the fact you don't get into it,
23 I just want to make it clear. You don't get into
24 how that -- why that happens?

25 A. I have not investigated why that happens.

1 Q. Other than nicotine, have you done any
2 research to determine what other components of
3 tobacco might affect brain wave and heart wave?

4 A. We did a study of menthol, which is just
5 completed, and we're analyzing the data.

6 Q. What's your conclusions to date on that?

7 A. We haven't analyzed the data yet.

8 Q. What was the hypotheses when you started the
9 project?

10 A. We were interested in whether menthol
11 smokers -- most cigarette smokers don't like
12 menthol. But, obviously, there's a percentage who
13 do and choose to -- and choose to smoke menthol
14 products. And there's been a lot of research in
15 the EEG literature about smell and taste having
16 effects, you know -- pleasant smells having effect
17 on the EEG. So the hypothesis there was there
18 might be an interaction between whether a person
19 was a regular menthol or non-menthol smoker and
20 whether they were smoking a menthol or a
21 non-menthol cigarette.

22 Q. Anything else, other than nicotine and
23 menthol, to determine effects on brain wave and
24 heart wave?

25 A. We did one study where we looked at the

1 interaction between caffeine and smoking.

2 Q. Did you publish as a result of that study?

3 A. Yes, we did.

4 Q. What's the title? Do you recall?

5 A. It had "caffeine" and "smoking" and
6 "psychophysiology" in the title; I don't recall
7 specifically what the title was.

8 Q. Do you recall generally what the conclusion
9 of your study was?

10 A. We did not see that the effects of smoking
11 varied, whether the person had consumed caffeine or
12 not. So they didn't interact.

13 Q. I see. You were studying whether or not
14 caffeine intake affected one's desire to smoke?

15 A. No. We were just seeing whether -- it's
16 common for people to self report that they smoke a
17 cigarette -- or they like a cigarette when they're
18 drinking coffee. And epidemiologically, people who
19 smoke also tend to be coffee drinkers.

20 So I wanted to know scientifically, you
21 know, is there something in the brain waves that
22 would show an interaction between the two. But we
23 didn't find anything.

24 Q. Was there any prior research which showed an
25 interaction?

- 1 A. No. The prior research, actually, and our
2 results were consistent with this, that it's --
3 it's probably the -- the ritual and taste
4 surrounding drinking coffee that lead to the
5 association with, you know, having a cigarette.
- 6 Q. Was there any other materials that you
7 studied to determine if there was a relationship
8 between intake of that material and effect on brain
9 or heart waves?
- 10 A. No.
- 11 Q. In your opinion, is nicotine a drug?
- 12 A. No. Not nicotine in cigarettes.
- 13 Q. Nicotine outside of cigarettes is a drug?
- 14 A. Pure nicotine would, in my opinion, fulfill
15 the FDA definition of a drug.
- 16 Q. Would the Premier cigarette have been within
17 your definition of a drug?
- 18 A. I'd say no.
- 19 Q. Was there not pure nicotine in -- as a
20 component of the Premier cigarette?
- 21 A. I know it had a nicotine yield; I don't know
22 where the nicotine came from, constructionwise.
- 23 Q. Do you know if the nicotine in Premier came
24 from burning tobacco?
- 25 A. Premier heated the ingredients rather than

1 burned them, as I understand it, you know, having
2 smoked one --

3 Q. So, the nicotine, at least we can agree, did
4 not come from burning tobacco in Premier?

5 A. I don't know where -- I don't know the
6 mechanism behind that.

7 Q. Did you see any research at RJR, or were you
8 aware of any research, that would have suggested
9 that the nicotine in Premier could have led to
10 Premier being classified as a drug, in and of
11 itself?

12 A. From -- no, huh-uh.

13 Q. Did you ever see any research or did you hear
14 any discussion at RJR that the effect of the
15 Premier design could lead to classification of the
16 nicotine in Premier as a drug?

17 A. I heard discussion that the FDA was trying to
18 do that, but that's all I know, really.

19 Q. Have you ever, during your ten years at RJR,
20 submitted any materials or testimony or oral
21 presentations on any FDA issues?

22 A. No.

23 Q. What department at RJR would interact with
24 FDA?

25 A. I don't know.

1 Q. What is your definition of a drug?

2 A. Well, as I understand the FDA definition,
3 it's a substance that is added to a product or
4 something, to alter the structure and function of
5 the body.

6 Q. Do you quarrel with the FDA's definition of a
7 drug? Not that nicotine is within it, but just the
8 definition.

9 A. I don't have an opinion about it, really.
10 That's the definition.

11 Q. Have you seen any studies or participated in
12 any studies at RJR that would analyze the effect
13 that nicotine had on the structure or function of
14 the human body?

15 A. In as much as EEG is a function of the brain,
16 yeah: My own research.

17 Q. In fact, doesn't your research indicate that
18 nicotine has an effect upon the brain?

19 A. It does; but the nicotine in tobacco is
20 naturally occurring.

21 Q. Does the FA -- FDA distinguish between
22 naturally occurring drugs and manmade drugs?

23 A. As I understand the definition, it's
24 something added, that isn't there, which isn't the
25 case with tobacco.

1 Q. We're going to get to this eventually; might
2 as well get to it now. What is your understanding
3 of the manufacturing process of tobacco?

4 A. That tobacco is cured by heat, I believe, in
5 a barn of some type. It's then -- I guess the
6 leaves are separated from the stem and chopped up,
7 and they have a machine that'll roll it up and put
8 it in cigarette paper and put a filter on the end
9 of it.

10 Q. Do you know if there are different types of
11 tobacco that are grown to yield different nicotine
12 levels?

13 A. No, I don't.

14 Q. Do you know if RJR has ever done any research
15 to determine if one particular type of tobacco
16 yields higher nicotine levels than another type?

17 A. I don't know.

18 Q. Do you know if RJR has ever done any research
19 to determine if the type of soil a tobacco is
20 planted in affects nicotine yield?

21 A. I don't know.

22 Q. Do you know if RJR has done any research to
23 determine if the type of fertilizers used affect
24 the nicotine yield?

25 A. I don't know.

1 Q. Were you given a tour of the manufacturing
 2 process when you started at RJR?
 3 A. No.
 4 Q. Did you ever go over and take a tour?
 5 A. No.
 6 Q. Have you ever been to the manufacturing
 7 plant?
 8 A. No, I have not.
 9 Q. Have you ever read any brochures on the
 10 manufacturing process?
 11 A. What I outlined before would have been what
 12 the brochure had. I don't remember reading a
 13 brochure about it, no.
 14 Q. Assume -- accepting your understanding of --
 15 that there has to be something added to the product
 16 to make it a drug --
 17 A. Uh-huh.
 18 Q. Is that a fair characterization?
 19 A. That's the FDA definition, as I understand
 20 it.
 21 Q. What is the product that you're referring to
 22 that RJR makes?
 23 A. RJR makes cigarettes, Counselor.
 24 Q. So, cigarettes -- cigarettes are the product.
 25 Are you saying, that in order to be classified

1 under the FDA definition of a drug, that RJR would
2 have to add nicotine to the cigarette?

3 A. As I understand it, yes.

4 Q. What if they added maple syrup that had the
5 effect of releasing more nicotine in the tobacco?
6 Would that qualify, then, to make nicotine a drug,
7 under your understanding of the FDA definition?

8 A. I don't know.

9 Q. What if the amount of time that the tobacco
10 was cured affected the nicotine yield, so that,
11 let's say for example, hypothetically, it increased
12 the nicotine yield? Would you, as a scientist,
13 interpret that as adding a substance to tobacco?

14 A. I don't know anything about the effect of
15 curing on nicotine yield. My understanding of
16 nicotine yield is it's largely a function of the
17 filtration of the cigarette.

18 Q. Well, have you done any human studies to
19 determine if any human characteristics of smoking
20 affect nicotine yield?

21 A. We've done studies looking at how people
22 smoke cigarettes -- puff on cigarettes.

23 Q. And the length of the puff affects nicotine
24 yield? Does it not?

25 A. Yes, it -- yes, it would.

1 Q. Doesn't the volume of smoke inhaled affect
2 nicotine yield?

3 A. Nicotine yield is defined as what comes out
4 the back end of the cigarette. What happens after
5 that, whether it's inhaled or not, isn't part of
6 the definition of yield.

7 Q. Under whose interpretation?

8 A. The FTC.

9 Q. And what you're talking about is mainstream
10 smoke?

11 A. Yes.

12 Q. Have you studied smoking characteristics of
13 humans to determine if particular habits affected
14 sidestream smoke?

15 A. If particular what?

16 Q. Smoking habits affect sidestream smoke.

17 A. No.

18 Q. Do you know what sidestream smoke is?

19 A. That's the cig -- the smoke that comes off
20 the front of the cigarette.

21 Q. And I don't know this; that's why I'm asking.
22 Has your research been concentrating on mainstream
23 smoke?

24 A. I was involved in one project that looked at
25 sidestream smoke.

1 Q. And what was that?

2 A. It was called VRP. I don't know what that
3 stands for. The -- the project was an attempt to
4 develop a product that produced less sidestream
5 smoke and, therefore, would be less irritating, you
6 know, to presumably nonsmokers or people who were
7 allergic to smoke or something like that.

8 Q. What year was that?

9 A. Uh, VRP, let's see. I guess '87.

10 Q. Was that unrelated to Premier?

11 A. Yes.

12 Q. Do you know if one of the goals of Premier
13 was to reduce sidestream smoke?

14 A. I don't know.

15 Q. Have you ever done any studies to determine
16 whether or not nicotine should be classified as a
17 drug?

18 A. No.

19 Q. Have you ever compared, say, nicotine to
20 marijuana or other drugs to determine if there's
21 any comparable qualities?

22 A. No.

23 Q. Is marijuana a drug, in your opinion?

24 A. By the definition, I'd say certainly it's a
25 controlled substance. But it's -- as long as the

1 THC occurs naturally in marijuana, I mean ...

2 Q. Because it occurs naturally in marijuana, it
3 would not fit your definition of a drug?

4 A. It wouldn't fit the FDA definition of a drug
5 that I used -- that I'm using here.

6 Q. Do you know if the FDA classifies marijuana
7 as a drug?

8 A. I believe -- yeah, I believe they do. It's
9 certainly a controlled substance that's illegal,
10 you know, unless you're in California. I don't
11 know.

12 Q. Now, it's your understanding that there is
13 nothing added to -- I'm sorry, not "nothing". That
14 nicotine is not added to the product, therefore it
15 doesn't qualify as a drug?

16 A. I'm not aware of any adding of nicotine.

17 Q. Do you know what is added to tobacco during
18 the manufacturing process?

19 A. No.

20 MS. FEE: Object to the form.

21 BY MR. MAISTROS:

22 Q. Do you know what additives are contained in
23 tobacco?

24 A. No, I do not.

25 Tobacco itself is tobacco. I presume

1 you're asking added to the tobacco, and I don't
2 know the answer.

3 Q. Yes.

4 For example, in the manufacturing
5 process, you described the curing, the putting the
6 leaves inside the cigarette paper, and then
7 sticking a filter on the end. Do you know where in
8 that process, if anywhere, additives are put into
9 the tobacco?

10 A. No, I do not.

11 Q. When you're -- and is it fair to say you've
12 studied the -- I think your testimony was you
13 studied the effects of nicotine on smoking
14 behavior?

15 A. I believe studies were done looking at the
16 effect of nicotine yield in smoking behavior.

17 Q. And do you think it's important to
18 understand, as part of those studies, not only
19 nicotine yield, but how nicotine interacts with
20 other materials that may be in the tobacco?

21 A. I've not studied that.

22 Q. Have you seen any research or heard of any
23 research that was done to determine what chemical
24 reactions take place during the smoking process
25 that might increase or decrease the nicotine yield?

1 A. No.

2 Q. Have you seen any studies that would
3 determine what the most important factor was that
4 had an effect on nicotine yield?

5 A. No.

6 Q. Do you know --

7 A. Well, other than -- my understanding is it's
8 largely a function of the air dilution through the
9 filter.

10 Q. What you call full flavor cigarettes, do you
11 know if there are full flavor cigarettes that have
12 filters?

13 A. My definition of a full flavor cigarette --
14 and I don't know if this is the right one, but it
15 is a filter cigarette with a nicotine yield of
16 around 1.0 milligrams. Unfiltered cigarettes would
17 have a higher yield.

18 Q. Well, don't they have unfiltered cigarettes
19 with low nicotine yields?

20 A. Not that I'm aware of.

21 Q. Do they have cigarettes with varying nicotine
22 yields that all have filters?

23 A. Yes.

24 Q. And how is your understanding of how the
25 nicotine yield is affected by the type of filter,

1 that is, between high nicotine yield and low
2 nicotine yield cigarettes?

3 A. My understanding is that they have machines
4 that cut microscopic pores into the filter that let
5 air go in, and that the nicotine yield can be
6 lowered by this air dilution process.

7 Q. When you look at the -- the yield levels,
8 nicotine yield levels of cigarettes, have you
9 compared the yield levels from, say, 1970 to the
10 present?

11 A. No.

12 Q. Have you ever seen any literature that
13 compared average yield levels of cigarettes from
14 1970 to the present?

15 A. No.

16 Q. Do you know if nicotine yield levels have
17 gone up or down since the 1970s?

18 A. I don't know for sure.

19 Q. Well, isn't -- is it fair to characterize a
20 large portion of your research having to do with
21 the effect of nicotine yield on smoking behavior?

22 A. No. I've never been interested in smoking
23 behavior defined as the type of puff the person
24 took on the cigarette; although we have measured
25 that in some studies I've published. But my

1 prim --
2 Q. Forget the type of puff for a moment. I'm
3 talking about isn't a large portion of at least
4 your published research having to do with the
5 interaction between the level of nicotine and
6 smoking behavior?
7 A. Not the level of nicotine. The main variable
8 would be the yield of the -- the nicotine yield of
9 the cigarette.
10 Q. Do you know if studies have been done to
11 determine the interrelationship between the
12 nicotine yield and smoking behavior?
13 MS. FEE: I'm going to object to
14 that; it's vague. What do you mean by "smoking
15 behavior"?
16 THE WITNESS: You asked me that
17 before. Yeah, I'm a little unclear.
18 MR. MAISTROS: Let me start at the
19 beginning.
20 BY MR. MAISTROS:
21 Q. Do you agree with the proposition that the
22 level of nicotine yield affects, in some fashion, a
23 person's desire to smoke?
24 A. The nicotine yield is defined as what comes
25 out the back end of the cigarette by the FTC

1 method.

2 Q. Yes.

3 A. And some consumers choose full flavored
4 cigarettes with a higher nicotine yield, some
5 choose light cigarettes with a lower, and some
6 choose ultralight cigarettes with a very low yield.

7 Q. And the most -- as a generalization, have the
8 most successful cigarettes in the history of
9 tobacco been those with the higher yields?

10 A. I don't know what the sales parameters are in
11 the three categories.

12 Q. Have you ever seen any research that examine
13 the interrelationship between sales figures and
14 nicotine levels?

15 A. No.

16 Q. Now, you said earlier that you were hired
17 with the task, if you will, of publishing
18 literature on the area that you were going to
19 study, correct?

20 A. Yes, sir.

21 Q. Other than publishing literature on the area
22 you were going to study, were you given any other
23 assignments, goals, et cetera, when you were hired?

24 A. As I recall, that was the primary purpose of
25 me being hired.

1 Q. Well, just explain to me why they would have
2 to pay you \$40,000 a year and \$86 to publish on
3 this, if you were already publishing on it for
4 free?

5 A. I had not published anything related to
6 cigarette smoking, prior to coming to work for
7 R.J. Reynolds.

8 Q. But had others in the academic community?

9 A. Yes, they had.

10 Q. Did you ever ask yourself why RJR wanted to
11 pay you \$40,000 a year to publish materials on
12 smoking in the studies you were doing?

13 A. I was told that they wanted to achieve a
14 better scientific understanding of cigarette
15 smoking. And they hired me to do basic science in
16 that area.

17 Q. Do you know, when they -- when they hired
18 you, did they give you a set of books or papers
19 that had been done in the past to catch up to speed
20 on what they knew at that point in time?

21 A. They didn't give me anything. I did
22 literature searches. I got -- you know ...

23 Q. Where did you do those searches?

24 A. It's sort of a tree process, where you go to
25 the journals currently and you find an article in

1 the area and that has references in the back. And
2 you pick out the references you think there's
3 something you should know about. And in this case,
4 our library will order the article for you, if
5 it -- if it's in a journal that we don't have in
6 the library.

7 And there are chapters in almost -- in a
8 lot of textbooks that -- or people have written
9 edited volumes, for example, about smoking. They
10 also have references in the back, so ...

11 And, you know, I -- the -- I was aware,
12 when I was interviewing, that John had done this --
13 done a study in this area and published it. So I
14 was aware of that article.

15 Q. And what was -- do you know what that article
16 was?

17 A. It was an article looking at the effects of
18 stress on certain types of EEG activity.

19 Q. But did it have to do with tobacco?

20 A. Yes. It was comparing the reaction following
21 smoking versus, I believe, not smoking, was the
22 control.

23 Q. Like dexterity reaction?

24 A. No. I'm talking EEG.

25 Q. Okay.

1 And did they ask you, before they hired
2 you, if you had read Robinson's research on that?
3 A. I don't remember.
4 Q. Did you agree with the conclusions Robinson
5 reached in that paper?
6 A. It looked like a good study. John wasn't the
7 first author; I believe Dave Gilbert was the first
8 author.
9 Q. Was this gentleman you mentioned earlier in
10 your testimony that was, for lack of a better word,
11 on the other side of the fence, Spillich --
12 A. George Spillich.
13 Q. Was he doing similar research?
14 A. He did a study of smoking and human
15 performance on various types of mental tasks.
16 Q. Was --
17 A. His study did -- that study did not include
18 any brain waves.
19 Q. Was RJR familiar with that study at the time
20 they hired you?
21 A. No. I mean, he did this study; it was done
22 years and years later.
23 Q. In 19 -- put yourself back in 1986. How many
24 people around the country were doing types of
25 studies like you were doing?

1 MS. FEE: Object to the form.
2 BY MR. MAISTROS:
3 Q. I mean, I know how many lawyers there are in
4 the country, I know how many bus drivers there are,
5 but how many people were sitting around, studying
6 EEG effects, such as you were doing?
7 A. I don't have a -- specifically know.
8 Q. Would you attend conferences where that was a
9 hot topic or ...
10 A. No.
11 Q. Are you aware if RJR has any research
12 laboratories, similar to what you're doing, in
13 other countries?
14 A. Not to my knowledge.
15 Q. How about in Canada?
16 A. No.
17 Q. Do you know -- have you ever been to Canada?
18 A. Yes, sir.
19 Q. Related to RJR?
20 A. I was there on company business, I believe --
21 was it four times?
22 Q. And what business would that have been?
23 A. There was a conference on nicotine in
24 Montreal, I believe.
25 Q. Was that like 1990?

1 A. I think that was more like '92. I don't
2 know. I go to a lot of conferences.
3 Q. And were you a representative of RJR?
4 A. I presented a -- a poster there -- or
5 research report.
6 Q. Do you remember the title?
7 A. It was later published in Psychopharmacology.
8 It was Assessing the -- no. What was it?
9 "Examining the Compensation Hypothesis," or
10 something like that.
11 Q. What was that?
12 A. I'm sorry?
13 Q. What was the compensation hypothesis?
14 A. The compensation hypothesis is the -- say a
15 person would move from a full flavor to a light
16 cigarette; they would tend to smoke the light
17 cigarette -- what's the right word, a little more
18 vigorously, and get more stuff out of it than the
19 FTC numbers would predict. Although, the FTC
20 numbers were never meant to be predictive of
21 individual smokers, they were benchmarked to
22 compare one product with another.
23 Q. When was this?
24 A. When was what, sir?
25 Q. The compensation hypothesis?

1 A. This appeared in Psychopharmacology. I
2 believe it was either '95 or '96.

3 Q. What were the results of your study?

4 A. It wasn't a study I did. I reviewed the
5 literature in the area and summarized what I --
6 what the results were.

7 Q. Did you summarize it to say that it appeared
8 to be accurate or responsible or inaccurate or had
9 shortcomings?

10 MS. FEE: "It" being the
11 hypothesis?

12 MR. MAISTROS: "It" being the
13 hypothesis.

14 THE WITNESS: The compensation
15 hypothesis?

16 MR. MAISTROS: Yes.

17 THE WITNESS: Our main conclusion
18 was that, on average, smokers will partially
19 compensate, but the FTC numbers, on average, are
20 still predictive of getting less tar and nicotine.

21 BY MR. MAISTROS:

22 Q. In layman's terms, is the conclusion that the
23 machine takes consistent puffs and the human takes
24 bigger puffs to get more nicotine?

25 A. Human smoking behavior, as I -- as I've

1 looked at puff profiles, is very -- incredibly
2 variable.

3 I mean, you're right about the FTC
4 taking the standard puff. It's a very --

5 Q. The machine just sits there and puffs in the
6 same amounts repeatedly until the cigarette --

7 A. Yeah. Well, that's the whole purpose behind
8 it, is standardized smoking regime that allows you
9 to compare -- you know, different products
10 relatively.

11 Q. Right. But, whereas this hypotheses was
12 that, if you had a light cigarette, the average
13 smoker would take longer puffs or bigger puffs?

14 A. There's many ways they could accomplish --

15 Q. But in some fashion they would desire or seek
16 to draw in more smoke to compensate for the lower
17 nicotine yields?

18 A. I'm not sure you can say it's necessarily
19 drawing in more smoke. They may be missing, you
20 know, the taste of the full flavored cigarette and
21 they're trying to achieve that same taste level.

22 Q. What studies have you done to determine an
23 interrelationship between the taste of the
24 cigarette and the nicotine yields?

25 A. We -- the one published in Psychopharmacology

1 was -- not the one I'm just talking about, but The
2 Role -- the "Sensory Role of Nicotine" or something
3 like that. One of those two studies I was talking
4 about earlier addressed that role.

5 Q. Have you ever done any studies or know of any
6 studies that would investigate the
7 interrelationship between taste and nicotine yields
8 versus the interrelationship between nicotine
9 yields and its effect on the brain?

10 A. We had data regarding subjects' impressions
11 of the taste in that study, and we had data
12 regarding brain waves. We published it -- they're
13 really -- the volume of data was such it would have
14 made too long of a single article, so we sort of
15 split it along logical lines and published them
16 separately.

17 Q. If -- is there sufficient data out there for
18 you, as a scientist, to draw a conclusion as to
19 whether or not there is, in terms of a person's
20 desire to smoke, a greater impact relating to taste
21 versus effect on brain waves?

22 A. No. I think what you see is that smoking is
23 a package. It consists of taste of the cigarette,
24 the ritual associated with smoking the cigarette,
25 and the mild pharmacology.

1 And you can't -- like I said before,
2 this morning, in that study, we tried to
3 statistically separate those out, and we just could
4 not do it. It's a package.

5 Q. Well, are you aware of studies at RJR that
6 would substitute certain additives for the taste,
7 flavors, whatever they might be called, that are
8 lost with low yield nicotine cigarettes?

9 A. No.

10 Q. You don't know if anyone's done any research
11 to determine if there's some additive you could put
12 in a cigarette that would make up for that taste
13 difference you find?

14 A. No.

15 Q. Do you know if taste additives are used in
16 RJR's cigarettes?

17 A. I believe they are -- there are -- I don't
18 know anything about it.

19 Q. Well, when you were testing human subjects to
20 determine what they thought of low yield
21 cigarettes, in that particular case did you use RJR
22 cigarettes?

23 A. These low yield cigarettes were experimental
24 cigarettes that didn't have anything in them but
25 tobacco and, you know, filter --

1 Q. More akin to Premier?

2 A. No. These were -- these were tobacco-burning
3 cigarettes.

4 Q. But they weren't marketed cigarettes?

5 A. No.

6 Q. Well --

7 A. Now, as a comparison, we had them smoke five
8 cigarettes. One of the cigarettes was a commercial
9 product.

10 Q. And did the data that you achieve correlate
11 between the non-marketed cigarettes and the
12 marketed cigarettes?

13 A. In -- for a couple of taste variables, as I
14 recall, the -- the commercial cigarette did a
15 little better.

16 Q. And do you know if that commercial cigarette
17 had any additives to compensate for the low
18 nicotine --

19 A. I don't know for sure. It had the same
20 nicotine yield as -- as one of the experimental
21 cigarettes, so it wasn't compensating for -- you
22 know, it had the -- almost exactly the same
23 nicotine yield.

24 Q. I assume, in these experiments, without
25 getting into the detail, that you would give human

1 subjects a cigarette and then ask a series of
2 questions, see if you could draw any conclusions
3 based upon taste?

4 A. What the subject would do would be smoke the
5 cigarette and then, afterwards, fill out a series
6 of questionnaires assessing their reaction to the
7 taste of the cigarette.

8 Q. Well -- and what did you hope to learn from
9 that?

10 A. We wanted to see what the sensory role -- if
11 we could learn something scientifically about the
12 sensory role of nicotine in tobacco smoke.

13 Q. How did you know it was the sensory role of
14 nicotine as opposed to some other chemical in the
15 tobacco?

16 A. Well, the tar was held relatively constant
17 across all the cigarettes. It wasn't perfect, but
18 it was pretty good.

19 Q. Tar was held constant but the nicotine levels
20 varied?

21 A. The nicotine yields varied.

22 Q. And did you not think it was important to
23 understand if there was any additives in the
24 tobacco of your test cigarettes that would affect
25 taste?

1 A. I didn't look into that specifically.

2 Q. I mean, if -- just scientifically, it seems,
3 if you hand me a cigarette and ask me what I think
4 about it, wouldn't you want to know what was in
5 that cigarette?

6 A. If it tasted good, not -- not necessarily.

7 Q. Let's assume you can draw a conclusion that
8 the third cigarette, everyone agreed it tasted
9 better. Wouldn't you want to ask: Why is that
10 cigarette different?

11 A. Well, again, five -- five of the cigarettes
12 were not commercial cigarettes.

13 Q. So you -- you weren't particularly interested
14 in, once you got these conclusions, using it to
15 develop a better product, you just wanted to
16 determine what the effect of the sensory process
17 was and how it interplayed with smoking?

18 A. Yes. It was a basic science question about
19 what happens when you keep tar relatively constant,
20 varying nicotine yield.

21 Q. And you found, what, as a result of that
22 study?

23 A. That nicotine had a -- the variation in
24 nicotine yield had an effect on the amount of
25 sensation in the chest and in the nose, I believe.

1 Q. So, it's fair to say that you can manipulate
2 or change the level of tar without a corresponding
3 change in the nicotine level yields?

4 A. In this study, tar was held constant and the
5 nicotine yield was varied.

6 Q. Okay. So I guess, then -- this is an aside
7 to your study, but is it a fair statement to say
8 that, if you wanted to, or R.J. wanted to, or
9 somebody else wanted to, they could change the
10 nicotine yields across the board, unrelated to the
11 tar levels?

12 A. Well, in as much as we did it in our study,
13 it's obviously possible.

14 Q. So theoretically it's possible to totally
15 eliminate nicotine yields?

16 A. I think -- a cigarette will always have a
17 nicotine yield: It's a method of smoking it on an
18 FTC machine. It may be zero, but you can always
19 put it through the test and get a nicotine yield
20 for any given cigarette.

21 Q. Right. As currently manufactured.
22 But there's nothing scientifically or
23 state-of-the-art that would prohibit a tobacco
24 company from eliminating nicotine in a cigarette,
25 is there?

1 A. Are you talking about eliminating nicotine
 2 from the tobacco?
 3 Q. Well, let's start there. Can you do that?
 4 A. Yes. You can -- just like you can
 5 decaffeinate coffee.
 6 Q. So you can produce a nicotine-free cigarette?
 7 A. I don't know if you can produce one with
 8 absolutely no nicotine left in the tobacco or not.
 9 Q. Well, if you could produce the tobacco
 10 without any nicotine, how would the nicotine get
 11 back in it?
 12 MS. FEE: Object to the form.
 13 THE WITNESS: I don't know what
 14 you're talking about.
 15 BY MR. MAISTROS:
 16 Q. You said that you could eliminate nicotine
 17 from tobacco.
 18 MS. FEE: That's not what he said.
 19 BY MR. MAISTROS:
 20 Q. Did you say that?
 21 A. You could -- you can reduce nicotine in
 22 tobacco. I don't know if you could eliminate it
 23 completely.
 24 Q. Well, let me -- decaffeinated coffee --
 25 A. Right. That's the example. There's

1 always -- there's still some caffeine left in it.

2 Q. Fine. Scientifically, state-of-the-art, you
3 can reduce the nicotine levels in cigarettes to
4 negligible amounts?

5 A. By "level," do you mean in the tobacco of the
6 cigarette?

7 Q. Yes.

8 A. Yes.

9 Q. And then, as a corollary, once you smoked it,
10 you would reduce the yields to negligible levels,
11 could you not?

12 A. Yes. Yes.

13 Q. Now, when you were studying the effects of
14 taste, the sensory -- effects of cigarettes on
15 taste, did you think it was an important factor to
16 try to correlate the nicotine yields with the taste
17 results?

18 A. That's exactly what we did. We looked at the
19 effect of nicotine yield on the -- these taste
20 responses. On how subjects perceived the amount of
21 sensation in the chest, for example.

22 Q. Was there anything else you looked at that
23 could have affected taste?

24 A. In that experiment?

25 Q. Yes.

1 A. The only thing that varied systematically was
2 the nicotine yield of the cigarette. Other than
3 the fact that the sixth cigarette was a commercial
4 product.

5 Q. Was there anything else you've tested, while
6 you've been at RJR, to determine the
7 interrelationship between taste and the products in
8 tobacco?

9 MS. FEE: Object to the form.

10 THE WITNESS: Let me think for a
11 second.

12 That was the first study where we
13 really were interested in -- in taste. We may have
14 asked questions. I don't remember --

15 BY MR. MAISTROS:

16 Q. When I hear the word "taste," as a lawyer,
17 I'm thinking in my mouth. You mentioned the chest.
18 Explain to me why that relationship exists?

19 A. Well, most people who smoke inhale the smoke,
20 and they get a sensation in their chest from it.

21 Q. How is that a taste sensation, though?

22 A. Well, it's -- okay, it's a sensory -- we'll
23 expand taste -- when I'm saying "taste," I'm
24 meaning sensory properties of the cigarette.

25 Q. How did you know that the nicotine yield

1 levels were different in the cigarettes that you
2 were using, if they were not commercial, marketable
3 cigarettes?

4 A. We have methodology to do -- to do the FTC
5 method. I mean, we have equipment, excuse me, to
6 do the FTC method.

7 Q. So you have equipment that duplicates the FTC
8 test?

9 A. Yeah. The FTC, as I understand it, doesn't
10 do any testing at all. The tobacco companies use
11 the method to test their cigarettes. I could be
12 wrong; that's my understanding.

13 Q. Well, how did you know that -- for example,
14 as you were handing your subjects the cigarettes,
15 what the nicotine yields were? Was it, like,
16 written on the cigarette or --

17 A. The cigarettes were coded with a letter: A,
18 B, C, D. And somebody, not involved in the
19 experiment, had the codes. So when we actually
20 gave the subject the cigarette, neither me or any
21 of the other people working on the study knew what
22 the yield was. And the subject didn't know,
23 either. It was double blind. It was trying to
24 avoid experiment or bias effects and other
25 things -- or placebo effects, if you will, you

1 know. Expectation effects.

2 Q. Did you have, at this point in time, a
3 Premier type cigarette that you also gave the
4 subjects?

5 A. No. We didn't -- I've never done any
6 research with Premier.

7 Q. Did you do any research -- similar research
8 with respect to non-tobacco products, such as gum
9 or injections?

10 A. No. No.

11 Q. So when you use the word "taste," it could be
12 anything from a range of how people like the
13 sidestream smoke going up their nose, or how it
14 affected their inhalation, or how it actually
15 effected an aftertaste in their mouth?

16 A. We ask questions assessing aftertaste, strong
17 taste, tobacco taste, harshness. I believe,
18 smoothness, amount of sensation in the nose, amount
19 of sensation in the throat, amount of sensation in
20 the mouth, amount of sensation in the lungs.
21 How -- and how easy they perceived it was to draw
22 the cigarette, to puff on the cigarette.

23 Q. And has your -- has your research indicated
24 that the item that has the most impact on taste, as
25 you define it, is nicotine?

1 A. That particular study showed nicotine did
2 have a role in cigarette taste, yes.

3 Q. Well, have you seen studies or have you
4 participated in studies where it has been
5 determined that something other than nicotine has
6 had an equal or greater effect on taste?

7 A. Well, I mean -- the tar contributes to the
8 taste of the cigarette too. That's why people
9 didn't like Premier: It didn't have any tar, in
10 essence, you know. Any smoke, if you will.

11 Q. Then what -- I mean, you heard that, or that
12 was some published study that people --

13 A. No. That's my own conclusion.

14 (DISCUSSION OFF THE RECORD)

15 Q. The study that you did on taste -- and I
16 don't want to use that word if it's improper. Is
17 it --

18 A. Sensory properties. That would be a more
19 technical -- I was using taste in -- broad termed.
20 You know, any sensations produced by the cigarette,
21 from the nose down to the chest.

22 Q. Now, did you send a memo up to marketing or
23 product development or somewhere else that says
24 that people tend to like or taste higher yield
25 cigarettes more favorable to lower yield

1 cigarettes?

2 A. Taste them more favorably? They reported
3 more chest sensation.

4 I didn't ever send any memo to
5 marketing, no.

6 Q. I'm still trying to understand what --
7 regardless of the results, how is this going to
8 help you?

9 A. It was an interesting basic science question.
10 In as much I was hired to do that kind of thing, I
11 went ahead and looked at it.

12 Q. Did anyone at RJR ever ask you to use those
13 results to contradict anything that might have
14 appeared in any other published studies?

15 A. No. No one asked me to use those results to
16 contradict anything.

17 Q. Did anyone ever ask you to, for example,
18 critique any of the Surgeon General reports, to
19 determine what you thought of them?

20 A. No.

21 Q. Did you ever do that on your own?

22 A. John Robinson and I critiqued the '88 Surgeon
23 General's report and published our critique.

24 Q. Whose idea was it to critique the '88 Surgeon
25 General's report?

1 A. It was John and mine.
2 Q. When you -- I don't know. In the industry,
3 is that something that was a big deal coming out?
4 Everyone was waiting to read, like, as soon as it
5 got off the press?
6 A. I've never had any contact with anybody from
7 any other tobacco company in my life. I don't -- I
8 have no idea what other people --
9 Q. In '88 you had been at RJR for two years --
10 A. Yeah.
11 Q. Did you know, for example: Next week the
12 Surgeon General's report is coming out; I can't
13 wait to read it or ...
14 A. I recall it coming out in '88. We didn't
15 write the critique until '91, and published it in
16 '92.
17 Q. When did you first read the Surgeon General's
18 report?
19 A. I haven't read the entire report. I read
20 portions of it. John, on that article critiquing
21 it, was the first author. So, I can maybe refer
22 you to him with regard to reading the whole thing,
23 being the first author there.
24 Q. Did you -- when you critiqued the Surgeon
25 General's report, did you critique the entire

1 report or only those aspects that related to your
 2 area of expertise?
 3 A. The critique was of the hypothesis that
 4 nicotine was as addicting as cocaine and heroine
 5 and other hard drugs in use.
 6 Q. Prior to 1988, what research had you done on
 7 the addictive nature of nicotine?
 8 A. None.
 9 MR. MAISTROS: Can we take a short
 10 break?
 11 MS. FEE: Sure.
 12 VIDEOGRAPHER: We're going off the
 13 record at 2:01 p.m.
 14 (RECESS TAKEN FROM 2:01 P.M. TO 2:13 P.M.)
 15 VIDEOGRAPHER: We're going back on
 16 the record at 2:13 p.m.
 17 BY MR. MAISTROS:
 18 Q. Dr. Pritchard, under what department or
 19 division would filter research be undertaken?
 20 MS. FEE: Object to the form.
 21 THE WITNESS: I don't know.
 22 BY MR. MAISTROS:
 23 Q. Do you know if there is a department that
 24 focuses on filters of cigarettes?
 25 A. I would assume, since we make filtered

1 cigarettes, that there is. I don't know. You
2 know, I mean, obviously there is, but I don't -- I
3 don't know anything about it.
4 Q. Is there a department, that you're aware of,
5 that has existed since '86 up to the present, that
6 focuses on the health consequences of smoking?
7 A. We had an office of smoking and health.
8 Q. Where's that located?
9 A. I don't know.
10 Q. Is it still --
11 A. I don't even know if it's still in existence,
12 to tell you the truth.
13 Q. When were you first aware of it?
14 A. I guess, '86. I'm not sure.
15 Q. Do you know any individuals that were
16 involved in that office?
17 A. Sam Simmons, S-I-M-M-O-N-S.
18 Q. When's the last time you talked to
19 Mr. Simmons?
20 A. I think I saw him in the lunch line a couple
21 of weeks ago. We both like to play tennis and we
22 talked about tennis.
23 Q. What's he doing now?
24 A. I don't know.
25 Q. I don't mean today. What's his title?

1 A. I don't know.
 2 Q. Where was the smoking and health department
 3 located in '86?
 4 A. I'm not sure I remember. I think on the
 5 second floor, but I'm not sure.
 6 Q. Was that a -- were there scientists in the
 7 smoking and health division?
 8 A. I believe Sam is a Ph.D. in -- I don't know
 9 what.
 10 Q. Did you read any publications that smoking
 11 and health division put out?
 12 A. No.
 13 MS. FEE: Object to the form of
 14 that previous question.
 15 BY MR. MAISTROS:
 16 Q. In the list of publications that you listed,
 17 what must seem like days ago, for example,
 18 Psychophysiology and these other journals you
 19 listed, do you know if any of those journals are
 20 funded, in whole or in part, by RJR?
 21 A. Not to my knowledge.
 22 Q. Do you know if RJR provides any grants to any
 23 of the contributors to those journals to do their
 24 research?
 25 A. I don't know.

1 Q. Do you know if RJR provides grants to
 2 researchers outside of RJR?
 3 A. We did at one time, when I first started
 4 working.
 5 Q. And you don't think they do now or ...
 6 A. My -- my impression is that the extramural
 7 funding just shrank for, you know, financial
 8 reasons, related to the company not doing as well
 9 as -- as we'd all like. Or at least as I'd like.
 10 Q. Now, the extramural funding, as you referred
 11 to it, had you ever received any grants from RJR
 12 before becoming employed at RJR?
 13 A. No.
 14 Q. Do you know of any of your colleagues that
 15 did?
 16 A. Do I have --
 17 MS. FEE: Objection. Vague.
 18 BY MR. MAISTROS:
 19 Q. Prior to being employed by RJR, were you
 20 aware of any of your colleagues who received
 21 research grants --
 22 A. No.
 23 Q. -- funded by RJR?
 24 A. No.
 25 Q. Do you know what your budget is, for example,

1 for this year? Do you have a budget?
 2 A. The budget is kept by John Robinson. I don't
 3 know what it is.
 4 Q. Were you ever privy to what the budget was
 5 for your department or division?
 6 A. Not that I recall.
 7 Q. Did you ever get memos from management that
 8 said: You're spending too much money; cut back
 9 here or there?
 10 A. Not that I recall.
 11 Q. Is there a written record retention policy at
 12 RJR?
 13 A. Yes.
 14 Q. What's the policy?
 15 A. You're not supposed to throw away company
 16 documents.
 17 Q. For how long?
 18 A. I don't know. They -- if they get to be a
 19 bother, they can pack them up and store them.
 20 Q. For example, if you did a research project
 21 critiquing the Surgeon General's report in 1991,
 22 would your work papers on that project still be in
 23 existence?
 24 MS. FEE: Object to the form.
 25 THE WITNESS: The -- what is saved

1 would be considered finished product. I don't have
2 to save every draft.

3 BY MR. MAISTROS:

4 Q. Well forget drafts for the moment. The
5 working -- do you know what I mean by "working
6 papers"?

7 A. No, I don't.

8 Q. Let's say you're doing a study of -- of
9 comparing the effects of nicotine yields on taste
10 of the cigarette, and you're reviewing notes of the
11 test participants, if you will, and you jot down
12 some note to yourself of interest. Would that type
13 of paper be saved?

14 A. I very -- I never write hand notes, because I
15 type so well. I would have the data and we would
16 be analyzing it and --

17 Q. Do you ever, like --

18 A. I would -- I would type the results right
19 into the manuscript I was working on.

20 Q. Did you ever make cassettes of your research,
21 dictate into cassettes?

22 A. Never.

23 Q. Is there a -- if I wanted to go back and look
24 at the data underlying a particular study you did,
25 is there some way I could request from RJR, you

1 know, give me Dr. Pritchard's underlying files on
2 the such-and-such paper?

3 A. As far as I know, all the raw data is still
4 there. Some of it may be on their -- on a 10 meg
5 Bernoulli disk that you might have trouble reading,
6 because I don't think they make that technology
7 anymore.

8 As far as I know, I've -- you know, I've
9 never thrown away any data that I've collected.

10 Q. Have you attended seminars where speakers
11 have also given presentations that may have been
12 employed by other tobacco companies?

13 A. Never.

14 Q. Do you know if there are scientists that work
15 at other tobacco companies that have speakers that
16 give public lectures?

17 A. I have no idea.

18 Q. You've never attended any sort of symposium
19 or conference where there -- scientists get
20 together from other tobacco companies?

21 A. Never.

22 Q. Have you ever done any studies on the
23 potential health consequences of nicotine?

24 A. No.

25 Q. How about the health consequences of any

1 component in tobacco?
 2 A. No.
 3 Q. Even though the smoking and health department
 4 or division no longer exists, as you know it, do
 5 you know if there's a department that studies that
 6 now?
 7 A. I don't know.
 8 MS. FEE: Object to the form.
 9 Studies what?
 10 MR. MAISTROS: Health consequences
 11 of smoking.
 12 THE WITNESS: I don't know.
 13 Let me clarify one thing,
 14 Counselor. I -- it may still be in existence. I
 15 just don't know. I haven't heard anything about it
 16 for years.
 17 BY MR. MAISTROS:
 18 Q. Do you know what the Council for Tobacco
 19 Research is?
 20 A. I have a vague idea.
 21 Q. What's your vague idea?
 22 A. It's some type of organization that's --
 23 funds tobacco research, I guess.
 24 Q. Have you ever --
 25 A. It's funded by the tobacco industry. That's

1 my understanding. I mean, that's all I know about
 2 it.
 3 Q. Have you ever done any research that was
 4 funded by the Council for Tobacco Research?
 5 A. No.
 6 Q. Have you ever met anyone that was associated
 7 with the Council for Tobacco Research?
 8 A. No, I haven't.
 9 Q. Have you ever heard of the Tobacco Industry
 10 Research Council?
 11 A. No.
 12 Q. Does RJR sponsor annual or semiannual or less
 13 frequent conferences on tobacco?
 14 A. They've sponsored conferences at my request,
 15 but they didn't have anything to do with tobacco.
 16 Q. What were they?
 17 A. They were conferences on applying chaos
 18 theory to the analysis of the EEG.
 19 Q. I'm sorry, you have to go slower for me.
 20 A. They were conferences on the application of
 21 mathematical techniques from chaos theory to
 22 analysis of the EEG.
 23 Q. When was that done?
 24 A. Oh, let's see. I think we had one in '90 or
 25 '91, and then one the following year.

1 Q. Would that have been entitled the 1990
 2 National Research Conference?
 3 A. No.
 4 Q. What was that?
 5 A. I have no idea.
 6 Q. Have you ever heard of the Behavioral
 7 Research Program?
 8 A. No.
 9 Q. How about the Scientific Advisory Board?
 10 A. I remember that term.
 11 Q. What do you know about that term?
 12 A. When I started working here in '86, it was a
 13 group of outside scientists who would advise on
 14 research.
 15 Q. Do you know how long it was in existence?
 16 A. No, I don't. I know that's not in existence
 17 anymore -- or if it is, I haven't heard anything
 18 about it for years and years and years.
 19 Q. Did you ever know anyone that was on it?
 20 A. I was introduced to them, but it seemed they
 21 were all toxicologists and I -- the names didn't
 22 stick.
 23 Q. Did you ever engage in any research to
 24 determine why, for example, a lot of people like to
 25 smoke Marlboros?

1 A. I suppose this HSB study was trying to
2 address that question.

3 Q. And that study - forgive me if I asked you
4 this - never concluded? Or you don't recall the
5 conclusion?

6 A. I don't recall the conclusions. My interest
7 was in personality data from it, which I published.

8 Q. And you think it's fair to characterize your
9 aspect of that research as studying why people
10 smoke Marlboros? Or is that somebody else's task?

11 A. I think, as I understand it, that was an
12 interest of that study. And it's certainly, you
13 know -- it's an interest of the company.
14 Marlboro -- Philip Morris sells more Marlboros than
15 we sell cigarettes.

16 Q. Is that the only study that at least you were
17 personally involved in, that could be fairly
18 characterized at trying to figure out why people
19 smoke Marlboros?

20 A. Yeah.

21 Q. Were you aware of any other studies that were
22 undertaken at RJR to determine why people smoke
23 Marlboros?

24 A. Well, like I said before, that study was like
25 a two-part study and it's very unclear in my mind

1 which part came first. There was something called
2 the Four Cities Study and then the Project HSB --
3 or they may have been the same thing. It seemed to
4 me they did -- it was a national study that was
5 done in two waves or something like that. I -- so
6 it may only be one study or it may have been two
7 studies.

8 Q. Who would have more knowledge of that study
9 than you?

10 A. I -- who would have more knowledge about HSB?
11 I would say the guy who really was responsible for
12 engineering our technology for measuring puffs.
13 And his name is Dave Griffith.

14 Q. Did your particular research, as part of that
15 study, have any conclusions with respect to why
16 people smoke Marlboros?

17 A. I -- nothing from the research, no. All you
18 heard was scuttlebutt.

19 Q. What was the scuttlebutt?

20 A. Well, this isn't any secret, really.
21 Marlboro has apparently -- well, it does; I've
22 smoked them. Has a very smooth taste that appeals
23 to a lot of smokers. And the knock against RJR
24 products is they always had this harsher taste
25 signature that wouldn't appeal to Marlboro smokers.

1 Q. When you say that you've experienced that,
2 are you talking about the --

3 A. My own personal smoking of Marlboro.

4 Q. When you say "smooth taste," are you talking
5 about your understanding of sensory effect?

6 A. I'm talking about what people said about why
7 Marlboro sold so well. It was sort of allure
8 rather than science.

9 And then what I was saying is, my own
10 impression of the taste of, say, a Winston, which
11 we make, versus the Marlboro was, yes, the Marlboro
12 was a smoother cigarette.

13 Q. Do you know what nicotine yields Marlboro
14 had, compared to Winston during this period of
15 time?

16 A. I believe they had virtually identical
17 yields, 1.1, something like that.

18 Q. Did any research ever get to the point of
19 identifying of why it was that Marlboro had a
20 smoother taste than Winston?

21 A. Not that I know of. I -- I wish it had.

22 Q. You can't -- if I put you with a group of
23 scientists that you know at RJR in a room together
24 and told you that you had no budget, could you
25 figure out how it is that Marlboro has a smooth

1 taste?

2 A. Told us we had no budget? What?

3 Q. Unlimited budget. Go spend as much money as
4 you want to, as much research as --

5 A. Unlimited. I'm sorry.

6 Q. Unlimited budget. Tell us why Marlboro has a
7 smooth taste.

8 A. I thought you were -- I thought you'd been to
9 some RJR fiscal cutting back somewhere.

10 I don't know how to go about that.

11 My -- you know, I have done studies looking at the
12 sensory properties of variations in nicotine yield,
13 but I'm not -- I'm not an expert on blending or
14 making cigarettes or how you change the taste of
15 the cigarette. Or I wouldn't have a clue how to
16 make a cigarette smoother.

17 Q. Are you aware of who James Johnston is?

18 A. Yes, I am.

19 Q. Who is he?

20 A. He was the last -- well, I don't know how
21 many of the three titles he had, president, CEO --
22 I guess he was president and CEO of R.J. Reynolds
23 Tobacco Company.

24 Q. He no longer is?

25 A. He retired about a year ago, I think.

1 Q. Do you know why he retired?
2 A. No. No. I really have no specific
3 knowledge.
4 Q. Did you ever hear why he retired?
5 A. Yes. I heard rumors.
6 Q. And what were those rumors?
7 A. His son had committed suicide about a year
8 before that, and it was a terrible, terrible blow
9 to him that he never got over.
10 Q. Have you ever met Mr. Johnston?
11 A. Yes. Not that he'd remember me.
12 Q. Where did you meet him?
13 A. I went downtown to a meeting of the board.
14 Q. Was this like an annual meeting of the board?
15 A. No, I was invited there.
16 Q. When was this?
17 A. Oh, gosh. I don't know. Circa 1990.
18 '90ish. 1991. I don't remember.
19 Q. Who invited you?
20 A. This was after the studies by DeFrannza and
21 Pierce -- I'm struggling with the names because it
22 wasn't my area, but came out in a special issue
23 of -- I believe it was JAMA, with studies
24 purporting to show that advertising, you know, was
25 allegedly -- advertising allegedly enticed under-18

1 persons to smoke. And we were asked to evaluate
2 the studies and see if they were -- we thought they
3 were scientifically well done.

4 Q. Did you publish a paper?

5 A. No, we did not.

6 Q. Did you do the study?

7 A. I'm sorry?

8 Q. Did you do the study?

9 You were asked to study --

10 A. Yeah, we sort of split the work up, as I
11 recall. And I did one of the papers that was
12 looking at recognition of Joe Camel versus the
13 original study that we were reading, was Joe Camel
14 versus Mickey Mouse, or something like that.

15 Q. So I have this straight, the non-RJR
16 scientists, was it DeFienza (sic) and Pierce?

17 A. There were a bunch of authors in that issue.
18 The two that stick in my mind were DeFranza -- a
19 Dr. DeFranza and a Dr. Pierce.

20 Q. And they had published a study which --

21 A. No. They had published separate studies.

22 Q. Okay. But there was a series of studies
23 alleging a link between advertising and underage
24 smoking?

25 A. Yes.

1 Q. And you were asked by who to evaluate their
2 studies?

3 A. I believe it was John Reynolds at the time.
4 But I'm not positive.

5 Q. Okay. So you --

6 A. It might have been John Robinson. I -- it's
7 right about the time when the boss change took --

8 Q. So you got a hold of the studies, I assume.
9 Were you familiar with them before you were called
10 on them?

11 A. No.

12 Q. You got a hold of the studies and read them?

13 A. I read one study.

14 Q. What did you do, to go about to determine --
15 in lack of a better word, to determine whether they
16 were fair, responsible articles?

17 A. I read them and -- you know, trying to
18 determine if they were methodologically sound.

19 Q. And what did you conclude?

20 A. The one I read, I thought there were some
21 problems.

22 Q. Do you know which one you read?

23 A. I can't remember the author of the one I
24 read, to be honest with you. It was one of the two
25 names I gave you; I'm almost certain of that.

1 Q. But did the --
 2 A. The name didn't stick in my mind, what I read
 3 in the study.
 4 Q. Did you do any independent research to
 5 confirm or challenge any of the items that were in
 6 these studies?
 7 A. No.
 8 Q. Did you prepare a paper with your
 9 conclusions?
 10 A. I prepared, as I recall, a summary of the
 11 paper that I had read.
 12 Q. And was that published?
 13 A. No.
 14 Q. Who did you give that summary to?
 15 A. I would presume it was either John Robinson
 16 or John Reynolds.
 17 Q. What was the conclusions that you had
 18 reached?
 19 A. In order to do that, I would have to briefly
 20 describe what the person who published the study
 21 did and why I thought it was -- didn't seem on the
 22 up and up to me.
 23 Q. Okay. Go ahead.
 24 A. If you want me to do that, I'll be glad --
 25 Q. Go ahead.

1 A. As I recall, the -- the experimenter would --
2 went into schools, and they got a room to use. And
3 they set up, and they had pictures of Mickey Mouse
4 and Joe Camel and other things. And they would
5 bring a kid in and go through, "Do you know who
6 this?" If it was Mickey Mouse, the kid would say,
7 "Yes," you know. And I think the last one that
8 they showed was Joe Camel. And if the kid
9 answered, "No," they would then say, "This is Joe,
10 the cartoon advertising Camel." And then that
11 child would leave the room and another child would
12 come in.

13 Well, Counselor, I think, to me, it's
14 pretty obvious, having gone to a public school,
15 what happened the minute that first child left the
16 room. He's telling everybody else in school what's
17 going on. And the punch line of the whole thing in
18 there with these guys is, Joe Camel was the last --
19 the cartoon camel was the last one.

20 They had response rates in schools where
21 100 percent of the people recognized Joe Camel.
22 And that just, to me, seemed too high.

23 So I was not impressed with the control
24 of that study and that's what I wrote on.

25 Q. What would you have done to impose more

1 accurate assessment of recognition?

2 A. I don't know. That's not my area. I would
3 have to sit down and think about that. I can't
4 answer that off the top of my head.

5 Q. Why were you selected to analyze what, from
6 layman's terms, would appear to be an advertising
7 issue, as opposed to an EEG brain wave affecting
8 issue?

9 A. They selected people who were doing basic
10 research and were familiar with reading papers that
11 were published in the scientific literature.

12 Because I sat right there, and what
13 Johnston wanted to know is, you know, do you -- "If
14 you think these studies really prove this point,
15 I'll take Joe Camel off the market tomorrow."

16 He said that. I heard him say that.

17 But everyone who reviewed these studies
18 had serious problems with their methodology, just
19 like what I outlined with the one I reviewed.

20 Q. Did he have in the room with him the
21 advertising people who created Joe Camel?

22 A. I had no idea who was in the room, other than
23 Mr. Johnston and, I assume, some other officers of
24 the company. But I don't know for sure.

25 Q. Well, how many of your peers were in the

1 room?
 2 A. It may have been three or four. I don't
 3 remember who it was.
 4 Q. And how many peers were assigned the task of
 5 reviewing this literature to determine its
 6 credibility?
 7 A. I think it was maybe three -- no, no, not
 8 three. It would have been about five, I would
 9 guess.
 10 Q. And do you know --
 11 A. Excuse me.
 12 Q. I'm sorry. Do you know if anyone was
 13 assigned the task of going out and interviewing the
 14 advertising people that created the Joe Camel ads
 15 to determine what they had to say in relation to
 16 these studies?
 17 A. No.
 18 MR. MAISTROS: Could I request
 19 officially a copy of his summary of his analysis of
 20 the study? I'm sure you don't know, sitting here,
 21 if it's been produced.
 22 MS. FEE: I have no idea.
 23 BY MR. MAISTROS:
 24 Q. And you think this was 1991?
 25 A. I'm guessing.

1 Q. Was that the one and only time you met
2 Mr. James Johnston?
3 A. Yes.
4 Q. Had you ever been asked, subsequent to that,
5 to prepare any material for Mr. Johnston before he
6 appeared before Congress to testify?
7 A. No.
8 Q. Were you aware he appeared before Congress to
9 testify?
10 A. I'm aware he -- yes.
11 Q. Were you aware of it before he appeared?
12 A. No.
13 Q. If I told you he appeared in 1994, would that
14 help you chronologically to tell me whether or not
15 you had been asked prior to that to gather any sort
16 of summary of the research you had been doing up to
17 that point in time? For any presentation.
18 A. Not from Mr. Johnston, that I recall, no.
19 Q. Did anyone ask you in -- about the time frame
20 of April of 1994, to prepare a summary of research
21 that your department had been doing insofar as
22 tobacco is concerned?
23 A. Not that I recall.
24 Q. Do you know what information Mr. Johnston
25 relied upon when he testified before Congress?

1 A. No, I do not.
 2 Q. Do you know if any of your colleagues or
 3 peers had prepared any papers to bring him up to
 4 speed on what RJR had been doing, prior to April of
 5 '94, so that he could testify before Congress?
 6 A. No.
 7 Q. And when I say "do you know," whether it's
 8 rumor, hearsay, locker room talk, anything.
 9 A. Not a rumor, nothing.
 10 Q. Is there an individual that I could talk to,
 11 say, today that would tell me everything I wanted
 12 to know about nicotine research RJR had done since
 13 they're in existence?
 14 A. One individual?
 15 Q. The best individual.
 16 A. I doubt it.
 17 Q. Is there a good individual?
 18 A. I'd refer you to the head of R & D, who could
 19 find that individual if they exist. That's Gary
 20 Burger.
 21 Q. Had you -- you mentioned this Mickey
 22 Mouse/Joe Camel study. Had you been asked to
 23 critique, since '86, any other papers on nicotine,
 24 tobacco or the effects of either?
 25 A. Critique?

1 Q. Yes.
 2 A. You mean the same way I critiqued --
 3 Q. Any way. "Here's a paper that says cigarette
 4 smoke is not good for you."
 5 A. No.
 6 Q. "Critique it."
 7 A. No.
 8 Q. Now, you did that for the Mickey Mouse/Joe
 9 Camel JAMA article -- I'm not holding you to it
 10 that that was JAMA, but --
 11 A. Right. That -- that was the only one I can
 12 recall where a paper appeared in the scientific
 13 literature and I was asked to critique it.
 14 Q. Without being asked, have you critiqued other
 15 peoples' work?
 16 A. Yes.
 17 Q. And what type of topics?
 18 A. John and I wrote a critique of an editorial
 19 by Robert West. Again, John was the -- maybe I was
 20 the first author on that one.
 21 And then we wrote a critique of an
 22 article that appeared in Psychopharmacology by Ian
 23 Stolerman, S-T-O-L-E-R-M-A-N.
 24 Q. What did Robert West write about, generally,
 25 in his editorial?

1 A. It was on the topic of nicotine, quote,
2 addiction, unquote.

3 Q. Whatever Mr. West said in his article, your
4 critique disagreed with it?

5 A. There were, as I recall, certain points that
6 he made that we pointed out there were other papers
7 in the literature that had found contrary data.

8 Q. Your critique was published, was it not?

9 A. Yes, it was. Both of them were.

10 Q. I'm sorry, the critique of West was published
11 and the critique of Stolerman was published?

12 A. Yes.

13 Q. What did Stolerman write on?

14 A. The same thing.

15 Q. Nicotine addiction?

16 A. Yeah.

17 Q. Where was West employed at the time he wrote
18 his article? Do you know?

19 A. He's in the UK, somewhere in London.

20 Q. How about Stolerman?

21 A. The same thing. He might not be in London.
22 Some institution in the UK.

23 Q. Is it your opinion, individually, that
24 nicotine is or is not addictive?

25 A. It's my opinion it's not addictive in the

1 same way that heroine is.

2 Q. So, take heroine out of the equation, is
3 nicotine addictive or not --

4 A. No.

5 Q. -- in your opinion?

6 A. No.

7 Q. I'm going to read to you -- and this was
8 marked as an exhibit yesterday as -- I'm sure you
9 were here. Number 5. The title of the document
10 I'm reading from is from Philip Morris to their
11 employees, "Drug Free Workplace Act: Policy
12 Guidelines". The origination isn't as important as
13 what -- I'm going to read to you something and I'm
14 going to ask for your opinion on it. Okay? And
15 I'll pass it to your counsel after I read it.

16 In the Philip Morris document that I've
17 identified, the following paragraph appears:
18 (Reading)

19 [The question is] What
20 is drug addiction? Is there
21 a difference between physical
22 and psychological dependence?

23 [And then the following
24 paragraph]: Drug addiction
25 is a term often used to

1 describe a user's physical
2 dependence on a drug.
3 Physical drug dependence is
4 characterized by
5 physiological changes in
6 which the body becomes used
7 to a drug and needs it to
8 function. When the
9 individual stops taking the
10 drug, he or she will
11 experience withdrawal
12 symptoms such as vomiting,
13 tremors, sweating, insomnia,
14 and possibly convulsions.
15 The term is gradually being
16 replaced with more a generic
17 term, "drug dependence."
18 [And there's another
19 paragraph]: Drug dependence
20 is the need for a drug, which
21 results from continuous or
22 periodic use of that drug,
23 and may include both physical
24 and psychological dependence.
25 Psychological dependence

1 occurs when an individual
2 feels a drug is needed in
3 order to feel good, or
4 normal, or just get by.
5 Psychological withdrawal is
6 characterized by anxiety and
7 cravings, both of which may
8 be extremely intense.
9 Now, I know those are long paragraphs.
10 Take the time, if you want, to read both of them.
11 I'm asking you, individually, as a scientist,
12 whether, A, you agree with those characterizations
13 of those terms?
14 A. Not really --
15 MS. FEE: Hang on. Is there a
16 question pending?
17 MR. MAISTROS: Yes.
18 MS. FEE: What's the question?
19 BY MR. MAISTROS:
20 Q. Let's break it down. Do you agree with the
21 first paragraph?
22 MS. FEE: Before he answers, I just
23 want to object that you're asking him to express an
24 opinion about two paragraphs of a document that
25 appears to be up around 20 pages long, a document

1 that he hasn't seen before, a document that's --
2 that's produced by another tobacco company. So in
3 the confines of that, if you have an opinion on
4 that paragraph, you can tell him what it is.

5 THE WITNESS: Okay. I think the
6 definition here of physical dependence is largely
7 inaccurate. I don't necessarily know that, off the
8 top of my head, seeing this cold, I would say that
9 a drug has to be physically -- produce, you know,
10 these physical symptoms to be addicting.

11 BY MR. MAISTROS:

12 Q. That's in the first paragraph?

13 A. Yes, sir.

14 I'm not sure about the term
15 "psychological dependence" here. To me, the
16 hallmark of an addicting drug is one that
17 intoxicates the person to produce feelings of
18 euphoria, things like that. That often is taken in
19 increasing amounts over time, but it produces this
20 behavioral intoxication. And this is -- you know,
21 what the drug does rather than -- and this is
22 something that's functioning and what happens when,
23 you know, the person stops taking the drug.

24 Q. So your quarrel with the first paragraph is
25 mainly the fact that you're not sure that there has

1 to be this physical interaction? What is it?

2 A. With the first one? I don't think you have
3 to have a -- necessarily have to have a severe
4 physical dependence. Although, if that is
5 present -- present, I would say that's a very
6 important criteria.

7 Q. Is there a definition at RJR that you use
8 to -- a formal definition that you use to describe
9 addiction?

10 A. To me, addiction includes some key core
11 concepts, such as -- obviously it's pharmacological
12 in nature; that the -- there is a pattern of
13 repetitive use; that the drug produces behavioral
14 intoxication and is often taken in increasing
15 amounts; and often produces strong feelings of
16 euphoria, at least when people first start using
17 it, which is why they often have to increase the
18 amount they take, to keep achieving the same
19 initial feeling of being high or euphoric. As well
20 as the other performances impaired.

21 Q. Has anyone that you're aware of at RJR ever
22 done any studies where they concluded that nicotine
23 was addictive?

24 A. Not that I know of.

25 Q. What components of your hallmark of an

1 addictive product does nicotine fail to meet?

2 A. Nicotine is not intoxicating. Nicotine
3 facilitates mental performance. Nicotine --
4 smoking people do not, over the course of time,
5 typically increase the number of cigarettes they
6 smoke per day; they can remain at a stable level
7 for decades, say, smoking a pack a day. Whereas a
8 user of heroine would have to keep increasing your
9 cocaine, keep increasing the amount of drug they
10 take in, to try and achieve the intoxicating
11 euphoric effects that they seek.

12 Q. Well, you agree that --

13 A. Nicotine is much more like, you know,
14 coffee -- I'm sorry, smoking is much more like
15 coffee drinking. Better classified in my mind as a
16 habit than -- than an addiction.

17 Q. In the studies that you've done or others
18 have done, have you arrived at any conclusions as
19 to whether or not people need nicotine in order to
20 feel good or normal or just get by?

21 A. The studies indicate that people can perform
22 at a higher level of performance after smoking.
23 And they would lose this additional benefit that
24 they get. I don't -- I'm not aware of any studies
25 where people need --

1 Q. There are also studies, are there not, such
2 as by Spillich, which would indicate that
3 performance decreases?

4 A. Yes. And that's contrary to all the other
5 reports in the literature.

6 Q. So that --

7 A. So, when one report stands out versus a
8 couple hundred others, it's an anomaly.

9 Q. Tell me what performance characteristics are
10 increased by the use or intake of nicotine.

11 A. It will generally improve reaction time in
12 some type of rapid decision-making or choice-making
13 task.

14 Q. For how long?

15 A. For how long? Nicotine tends to have a
16 relatively rapid distributional half life in the
17 body. Approximately -- I don't know, 20 minutes,
18 maybe.

19 Q. So that -- have your studies indicated that
20 reaction time is improved, regardless of the amount
21 of nicotine intake or regardless of the length of
22 time?

23 A. The length of time of what?

24 Q. The intake, for example. Is performance
25 increased after the first cigarette the same as it

1 is after the twentieth?

2 A. We've done studies indicating that smokers
3 who have been smoking ad libitum still have
4 performance enhancement from smoking.

5 Q. And it's pretty well accepted, at least from
6 your standpoint, that performance is facilitated by
7 nicotine?

8 A. A large array of cognitive performances.

9 Q. Reaction time being one. What else?

10 A. In a lot of situations.

11 When a person is doing a sustained or
12 monotonous task, there's often a gradual fall-off
13 in performance over the course of an hour, say. So
14 when you study someone in a sustained attention
15 task like that, monitoring something like a visual
16 display, nicotine will attenuate this drop-off in
17 performance that you normally would see.

18 There have been studies that nicotine
19 improves memory.

20 Q. What else?

21 A. Both short-term and long-term memory.

22 Well, you're rapidly exhausting the
23 behavioral measures that are commonly reported in,
24 you know, psychological literature.

25 Q. Why haven't I seen any advertising that tells

1 me that, if I smoke, my reaction time will be
2 better, my performance over time will be better, my
3 memory will be better?
4 A. I don't know.
5 Q. Aren't those positives?
6 A. They are to me, yeah.
7 Q. Have you ever seen any advertisements which
8 espouse the view that, if you smoke RJR products,
9 your memory, performance over time and reaction is
10 improved?
11 A. I've never seen them.
12 Q. Nicotine, insofar as those items are
13 concerned, then, would have a positive effect, in
14 layman's terms?
15 A. Yes.
16 Q. When I say effect, I'm talking about a
17 physical effect on the human body as opposed to a
18 psychological affect? Are you -- better put: Are
19 you referring to a physical effect?
20 A. When I look at the brain wave effects of
21 smoking, high yield cigarettes versus low yield
22 cigarettes, you see a pattern of EEG changes called
23 EEG activation. The brain has become alert and
24 better able to process information.
25 Q. So is it fair to say that nicotine, at least

1 in your studies, that has shown to have these
2 effects, has these effects because of the effect it
3 has on brain waves?

4 A. The brain waves are a correlate of what --
5 the underlying processes taking place.

6 Q. It's a biological process as opposed to a
7 mental process? Or is it?

8 A. Well, brain waves will correlate with mental
9 processes too.

10 Q. Is improved reaction time, performance
11 over time, and memory a biological or mental
12 consequence?

13 A. It's mental performance; but, as a scientist,
14 I believe that behavior is a function of the brain.
15 That's the prevailing view in science these days.

16 Q. But in layman's terms, these effects are
17 positive effects on the central nervous system, if
18 you will?

19 A. I would say, having my reaction time faster,
20 I would consider that to be positive. If I was
21 driving a car, for example.

22 Q. And you have isolated that it's the nicotine
23 that causes this effect?

24 A. We don't see these effects with cigarettes
25 with very, very low nicotine yields.

1 Q. So, the higher the nicotine yield, the better
2 improved your performance characteristics are?

3 A. No. No. No, no, no, no. Even in
4 experienced smokers, too much nicotine can be
5 toxic. Even they can -- that's going to hurt your
6 performance. So, no, it's not the question of more
7 is always better.

8 Q. Let's just start at the simple -- the low --
9 lowest tar cigarette you can think of. I don't
10 know what it is; I never cared for low tar
11 cigarettes. But whatever it is, low tar/low
12 nicotine cigarette out there, have you done studies
13 to determine if reaction time, memory and
14 performance over time improves with higher nicotine
15 yield cigarettes?

16 A. We know that it improves for, say, comparing
17 a 1.0-milligram nicotine cigarette versus, you
18 know, whatever the yield of a Now is. That's one
19 of our ultra low cigarettes.

20 Q. So, isn't it fair to say, in layman's terms,
21 forget -- if we get up into toxic levels of
22 nicotine, that the higher the nicotine yield, the
23 higher increases you'll see in these performance
24 characteristics?

25 A. The toxicity of nicotine can kick in very

1 quickly, even in experienced smokers.

2 Q. What level, is your understanding, that that
3 would kick in? Or could kick in.

4 A. I don't have the figure. I've had
5 experienced smokers come in and -- who were smoking
6 the first cigarette of the day, and, you know,
7 sometimes they've been smoking for 20 years, and
8 say, "You know, I feel a little queasy." Sometimes
9 that happens from the first cigarette, you know.
10 But I don't have the figure, you know.

11 Q. But taking out, though -- I mean, I assume,
12 during the course of your research, you're going to
13 get people all over the chart, isolated instances,
14 where you get some reactions that you would not
15 expect. But as the norm, I'm saying: Can I draw a
16 conclusion that, if you take a low tar/low nicotine
17 yield cigarette and compare it to a higher nicotine
18 yield cigarette, your studies have shown that these
19 improvements in reaction time, performance
20 over time and memory would increase with the higher
21 yield cigarettes?

22 A. I've not done a response function study like
23 the earlier one we were talking about with the
24 sensory measures that we did. I've not done that
25 with nicotine yield and performance. All I can say

1 is you see the reaction time facilitation,
2 typically, with a 1.0-milligram cigarette and not
3 with an ultra low yield cigarette.

4 And my scientific guess would be, very
5 quickly, toxic effects would set in that would lead
6 to an ultimate deterioration in performance because
7 the person feels nauseous or lightheaded.

8 Q. These tests you're talking about are all done
9 on smokers?

10 A. We test smokers, yes.

11 Q. So you wouldn't know, sitting here today,
12 whether or not these performance characteristics
13 are a result of the nicotine yield or a result of
14 the fact that the smokers just need nicotine to
15 satisfy their nicotine needs?

16 A. What?

17 Q. Let's start over. You've got smokers that
18 you say, if they take high nicotine yield
19 cigarettes and smoke them, these performance
20 characteristics are improved.

21 A. Right.

22 Q. Is that in comparison to before they lit or
23 in comparison to nonsmokers?

24 A. It's in comparison to before smoking.

25 Q. So how do you know what their performance

1 characteristics were before they started smoking,
2 if they're all smokers?

3 A. Well, I -- I didn't measure them, obviously,
4 back then.

5 Q. Are there any tests that could be done to
6 determine if these results that you say are
7 indicated through the intake of nicotine would be
8 comparable to nonsmokers who smoke for the first
9 time?

10 A. We have not done such studies, but other
11 people have administered nicotine IV, they've used
12 nicotine gum or chewing buffered nicotine tablets,
13 and you see the same facilitation effects in never
14 smokers that you see in smokers.

15 Q. Are you saying that it would be accepted
16 scientific principle that nicotine has a positive
17 effect, at least on these three performance
18 characteristics?

19 A. I would say there's a lot of data to support
20 that. Numerous studies.

21 Q. And the big ones are reaction time,
22 performance over time with respect to mundane
23 tasks, and long and short-term memory?

24 A. Yeah. That's a good -- people have done
25 studies of simulating driving, you know, which is a

1 complex task involving a lot of different reactions
2 and steering and things like that. Generally the
3 same --

4 Q. In real layman's terms, let me understand
5 this, that, theoretically, if I'm a smoker and I'm
6 conducting this deposition, if I was smoking while
7 I was doing it, I'd have a much easier time
8 remembering what I had asked you this morning?

9 A. Memory designs are very complex. If you
10 review the smoking and long-term memory literature,
11 there's a lot of ways you can do the experiments.
12 In fact, it gets combinatorically outrageous after
13 a while, depending upon whether the material is
14 verbal or nonverbal, rote learning,
15 paired-associate learning, whether it's recall,
16 recognition, the length between -- you know,
17 there's a million things you can vary.

18 And my impression, having read this
19 literature, is that maybe 40 percent or so of the
20 studies find, depending upon which particular
21 combination of these variables that you can design
22 the study around, nicotine improves memory. And
23 there's about -- some -- an equal number that find
24 no effect, and then there's a very small number
25 that report a decrement.

1 So it's a complex issue, talking about
2 nicotine and memory.

3 Q. A while ago we started out with you
4 mentioning these performance characteristics. And
5 I believe your point was that, if it was true that
6 these effects were derived from intaking nicotine,
7 then that would weigh, in your mind, against
8 nicotine being addictive?

9 A. As I would meaningfully define an addictive
10 drug, it would produce behavioral intoxication that
11 is poorer mental performance, as, you know, alcohol
12 or heroine or --

13 Q. If a substance -- and this is a general
14 proposition. If a substance improves these
15 abilities, you would say that that tends to weigh
16 against its addictive nature?

17 A. All other things being equal, if it didn't
18 also make the person maybe -- their reaction time
19 might be faster, because of the euphoria they just
20 make stupid or bad judgments, I would not call it a
21 beneficial effect.

22 Q. Well, do you know any effects, for example,
23 cocaine has been shown to have on the human body,
24 at least when initially ingested? Performance
25 effects.

1 A. Performance. It will enhance reaction time;
2 but it also produces an intense euphoria that would
3 cloud the person's judgment. They may be able to
4 stop for the traffic light faster; but, hell,
5 they're going to go ahead and run the light,
6 because I feel so good, nothing's going to happen
7 to me. And I wouldn't call that a benefit.

8 VIDEOGRAPHER: Mr. Maistros, we
9 have five minutes left on the videotape.

10 MR. MAISTROS: Okay.

11 BY MR. MAISTROS:

12 Q. Is there a -- you used the words "queasy" and
13 "intoxication". Are those the same? Different?

14 A. Intoxication is something that impairs your
15 psychomotor performance, an impairment of
16 psychomotor performance. You can't drive the car
17 when you're drunk, as well as when you're sober.

18 Q. Have you -- have you seen any studies that
19 would indicate that people that have ingested
20 cocaine cannot drive cars?

21 A. Okay. The second aspect I would -- was
22 talking about would kick in there. They're also
23 feeling extremely euphoric and, therefore, just as,
24 say, a manic person who's euphoric shows
25 tremendously poor judgment, I would say they would

1 show -- because of the euphoria, typically show a
2 pattern of poor judgment, that would more than
3 offset any acute short-term, you know, improvement
4 in reaction time.

5 Also, chronic cocaine use, of course,
6 you have to keep increasing the dose. And
7 eventually people can even become psychotic from
8 mentally -- you know, that doesn't -- people get
9 the same benefit from cigarettes for decades and
10 don't increase the amount they use, et cetera.

11 Q. Are you saying that -- are there drugs out
12 there that you would classify as addicting, that
13 you reach a certain level and you don't have to
14 increase the dose? Or is every addicting drug that
15 you're aware of you always increase -- there's a
16 need to increase the dose?

17 A. I think you reach a point, with truly
18 addicting drugs, where the body just can't handle
19 any more. And, I mean, you know, you can't -- you
20 can only drink so much whiskey in a day before
21 you're talking about the daily consumption becoming
22 lethal.

23 Q. And there's no comparison you see between
24 that type of effect and nicotine?

25 A. No. Alcohol impairs performance; I mean,

1 that's very well known. Nicotine doesn't.

2 Now, an alcoholic may stabilize at, you
3 know, a fifth a day, but that's a huge consumption
4 relative to anything else, and it's probably
5 pushing the limits of, you know, giving yourself a
6 lethal dose.

7 Q. When you mentioned toxic before in terms of
8 nicotine intake, you're not talking about the harsh
9 end that it will kill you, you're talking about
10 just having some sort of nauseating effect on the
11 body?

12 A. The first thing people typically report is
13 feeling lightheaded and dizzy, and then queasy, and
14 then they'll actually throw up.

15 Q. Okay. And you're saying that you've had
16 studies that would indicate when that would occur
17 in a typical smoker?

18 A. No. I said my best guess was that type of
19 phenomenon would kick in very quickly, if you kept
20 increasing the nicotine yield in the cigarette.

21 Q. I assume RJR has done studies to determine at
22 what levels nicotine might become dangerous to the
23 human body?

24 A. The studies -- well, the levels we're using,
25 time and time again, don't have any toxic effect.

1 I was speculating, if you kept pushing the yield
2 higher.

3 I mean, if a guy is saying he's smoking
4 20 of these cigarettes a day on his own with no
5 problem, and he likes them, you presume giving him
6 one in the lab is not going to be anything
7 different than he's not already doing on a regular
8 basis.

9 MR. MAISTROS: We have to take a
10 break to change the tape, if you don't mind.

11 THE WITNESS: Oh, sure.

12 VIDEOGRAPHER: We're going off the
13 record at 3:11 p.m. We're off the record.

14 (RECESS TAKEN FROM 3:11 P.M. TO 3:23 P.M.)

15 VIDEOGRAPHER: This is tape 3 of
16 the videotape deposition of Walter S. Pritchard,
17 Ph.D. We're going on the record at 3:23 p.m.

18 BY MR. MAISTROS:

19 Q. We can have this marked as an exhibit, if
20 it's necessary. I probably will. But let me ask
21 you first, are you familiar, Dr. Pritchard, with
22 the DSM standards that are published by the
23 American Psychiatric Association?

24 A. Yes.

25 Q. When did you first study these standards?

1 A. I don't know that I --
2 MS. FEE: Object to the form.
3 THE WITNESS: I don't know that
4 I've studied DSM-IV. I have read parts of
5 predecessors'.
6 BY MR. MAISTROS:
7 Q. Have you read any in conjunction with the
8 research you've done at RJR?
9 A. No.
10 Q. Have you read the DSM standard related to
11 nicotine dependence?
12 A. I'm sorry, I was wrong before.
13 Right. I have read it -- I have read
14 that.
15 Q. And specifically 305.10, Nicotine Dependence,
16 you've read that?
17 A. I don't remember the number.
18 MR. MAISTROS: I'll mark this as an
19 exhibit. I'd like to probably start over, if no
20 one objects, to Pritchard number 1.
21 MS. FEE: That's fine.
22 (PLAINTIFF'S EXHIBIT NUMBER 1 WAS MARKED FOR
23 IDENTIFICATION)
24 BY MR. MAISTROS:
25 Q. I'm going to show you what's been marked as

1 Pritchard Exhibit Number 1 and ask you if you could
2 review 305.10, which is under the heading Nicotine
3 Dependence. You don't have to read it out loud,
4 just read it to yourself.

5 A. Every page in this?

6 Q. No. The 305.10. The paragraph right there,
7 that I've opened it to.

8 A. Okay.

9 (WITNESS REVIEWS DOCUMENT)

10 A. Okay.

11 Q. Have you seen that particular DSM heading?

12 A. I don't remember. I think DSM-III, Nicotine
13 Dependence, that was the one I read. Or was it
14 III-R? I don't remember.

15 Q. Did you study the DSM's when you were taking
16 your formal college courses?

17 A. No.

18 Q. How about when you were teaching?

19 A. At the University of Texas we studied both
20 the RDC and the DSM-III criteria for a diagnosis of
21 schizophrenia.

22 (DISCUSSION OFF THE RECORD)

23 Q. Is it fair to say, then, that you did not
24 study or have familiarity with the DSM's insofar as
25 they applied to nicotine dependence?

- 1 A. I had read either DSM-III or DSM-III-R.
2 Q. Predecessors to DSM-IV?
3 A. To IV, right.
4 Q. And did you read DSM-III and/or IV while you
5 were employed at RJR?
6 A. As I said, IV just came out. I don't think
7 I've read that before. I read DSM-III when we were
8 writing the article, The Role of Nicotine in
9 Tobacco use.
10 Q. "We" being Robinson and you?
11 A. Yes.
12 Q. Did you -- do you know why the DSM's are even
13 created? Why do they exist?
14 A. So that psychiatrists can give a standard
15 diagnosis when billing health insurance companies,
16 things like that. And to -- you know, on the
17 hospital charts, I guess.
18 Q. Is that their only function and purpose?
19 A. It's a system of making standardized
20 diagnoses of -- in psychiatric medicine.
21 Q. Have you ever written any material on your
22 interpretation of the DSM's in any fashion?
23 A. No.
24 Q. Did you ever review either the predecessor or
25 this version of the DSM, related to nicotine

1 dependence, and express an opinion as to your
2 belief in the accuracy or validity of that
3 criteria?

4 A. I don't think I read anything about nicotine
5 dependence in DSM before I came to work for RJR,
6 just as I had done no nicotine research before I
7 came here.

8 Q. How about after?

9 A. As I just said, yeah, I read -- it was either
10 III or III-R section on nicotine dependence.

11 Q. Did you ever express an opinion, written or
12 oral, as to any agreement or disagreement with the
13 description?

14 A. Not that I recall specifically on DSM-III-R,
15 or whatever -- whichever one it was.

16 Q. Having read DSM-IV 305.10, do you have an
17 opinion as to your personal belief as to the
18 validity of this description?

19 MS. FEE: Can he look at the
20 document? He's read it once now.

21 (WITNESS REVIEWS DOCUMENT)

22 THE WITNESS: Do you want me to go
23 through it line by line, or whatever you want to
24 do.

25 MR. MAISTROS: Whatever way is more

1 comfortable for you.

2 THE WITNESS: Okay.

3 (WITNESS REVIEWS DOCUMENT)

4 THE WITNESS: Okay, I'm not sure
5 what "generic Dependence criteria" there
6 specifically refer to that don't apply to nicotine,
7 but my guess would be that it's not euphoriant and
8 it doesn't produce intoxication; which, to me, is
9 important in defining an addicting drug.

10 I'm not sure I would like to see
11 what studies this is based on -- that experienced
12 smokers really develop a lot of tolerance to nausea
13 or they just learn to avoid too high a nicotine
14 level to produce the nausea.

15 I disagree with the statement of
16 the DSM-IV that "nicotine produces a well-defined
17 withdrawal syndrome." The syndrome is rather vague
18 and nebulous, in my opinion. It consists of
19 difficulty in concentration, anxiety, of course you
20 want to have a cigarette, restlessness, things like
21 this. And to me, any time a person stops doing a
22 well-enjoyed activity that they've done for a long
23 time, they're going to have these types of vague
24 psychological symptoms.

25 So I don't think the syndrome or

1 whatever it's called, described here, is somehow
2 specific to nicotine. I think it's what you would
3 see for any well-enjoyed activity that a person
4 would, for whatever reason, stop doing.

5 Q. Have you done withdrawal studies?

6 A. No.

7 Q. Do you have any expertise in withdrawal
8 studies?

9 A. I don't have to do withdrawal studies,
10 Counselor. What people report when they stop
11 smoking is well-known. The question is in the
12 definition or the interpretation of the symptoms
13 that are there.

14 Q. What are the -- what do the scientific
15 research studies show? Forget what people --

16 A. You said you wanted me to go through this.
17 Do you want me to stop?

18 Q. Yes, at this point.

19 What does the scientific research show
20 in terms of withdrawal symptoms from nicotine?

21 A. When people stop smoking, they will report
22 that they feel restless. They have difficulty
23 concentrating, they feel anxious, maybe have some
24 trouble sleeping, maybe depressed. I would think
25 those cover most of the so-called symptoms.

1 Q. Has anyone at RJR done research on
2 withdrawal, that you're familiar with?

3 A. No.

4 Q. Give me an example, if you could, of
5 well-liked behaviors or enjoyable behaviors that
6 cause the same symptoms.

7 A. People often report similar symptoms when
8 they have to go on a diet.

9 Q. What else?

10 A. People vary in what they like to do. I mean,
11 that would be a function of the person. A diet's a
12 diet, and, I'd say, is pretty universal and nobody
13 likes to do that and don't enjoy the process, and
14 they feel -- you know, they don't feel like
15 themselves while they're doing the diet.

16 Other specific examples would be a
17 function of what the person liked to do. Often
18 athletes, when they're injured, report symptoms
19 like this, especially depression.

20 Q. Are the symptoms that people experience when
21 they diet psychological, physical, or both?

22 A. In my opinion, it's largely -- well, again,
23 as a neuroscientist, I believe psychology is a
24 function of brain and the brain is a physical
25 organ, so ...

1 You know, these are -- nothing like what
2 you see when somebody withdraws from heroine.
3 Nothing like somebody who withdraws from alcohol.

4 Q. What else in the article or in the definition
5 do you find trouble with or disagree with?

6 A. Do you want me to resume my --

7 Q. Sure.

8 (WITNESS REVIEWS DOCUMENT)

9 A. Well, it says that they use up their supply
10 of cigarettes faster than originally intended. To
11 me, that says they're increasing their number of
12 cigarettes they're smoking, otherwise they wouldn't
13 be surprised. I don't think you see that. People
14 reach a stable level of smoking with very little
15 variation per day.

16 Okay.

17 Q. Is that it?

18 A. Those are the things that came to my mind,
19 reading it through the second time.

20 Q. Are you a member of the American Psychiatric
21 Association?

22 A. No, I'm not. I'm a regular reviewer for
23 their journal, though.

24 Q. What's a "regular reviewer"?

25 A. I get sent, probably, ten papers a year from

1 the editor Wagner Bridger.

2 Q. Have you ever been asked to critique any
3 publications in that journal that deal with the
4 nicotine dependence DSM?

5 A. No, I have not.

6 Q. Now, before we started off on this issue of
7 performance enhancement, we talked about three
8 things that, in your mind at least, led to your
9 conclusion that nicotine was not addictive, one of
10 which was it's not intoxicating. Is that a fair
11 characterization?

12 A. It doesn't produce behavioral intoxication.

13 Q. Is it corollary to that, that in order to fit
14 your definition of addiction, it would have to
15 produce behavioral intoxication? Is that a
16 requirement? Or are you just saying that that's a
17 factor that --

18 A. I would say that's a requirement.

19 Q. And you also mention that it's been
20 determined that smokers reach a stable level of
21 intake of cigarettes as weighing against finding
22 that it's addictive.

23 A. Yes, I do. Because, for example, heroine
24 addicts, cocaine addicts will routinely increase
25 what they take in to get the same effect, the same

1 euphoric effect.

2 Q. Is that a requirement or just something that
3 weighs in your mind against a finding that
4 nicotine's addictive?

5 A. It's part of what I would consider a
6 meaningful definition of the term "addiction".

7 Q. Earlier, when you mentioned the health risks
8 associated with smoking, would you group within the
9 broad definition of health risks the habit-forming
10 nature or -- and some people have used the
11 addictive nature of cigarette smoking as a, quote,
12 health risk, unquote.

13 MS. FEE: Object to the form.

14 THE WITNESS: No. I was talking
15 about things like increasing risk for lung cancer.
16 BY MR. MAISTROS:

17 Q. So, is one of the concerns you personally
18 took into consideration -- the fact that you might
19 smoke cigarettes because they're habit-forming
20 wasn't a concern to you, it was more of the health
21 consequences of smoking?

22 A. I'm not sure I understand. Are you talking
23 about when I stopped smoking?

24 Q. Right. You -- earlier you mentioned that you
25 stopped Camels and went to Premier because of

1 health concerns --
2 A. Yeah. Right.
3 Q. -- with Camel.
4 Would it be unfair of me to say that,
5 within that universe of concerns that you had, was
6 whether or not cigarettes were addicting or
7 habit-forming?
8 A. No.
9 Q. It wouldn't be fair?
10 A. Fair.
11 Q. It's not -- not within your universe of items
12 that you were concerned about?
13 A. I was concerned about things like can --
14 increased risk of cancer and heart disease
15 associated with smoking.
16 Q. Has there been disagreement within RJR over
17 whether or not cigarettes, and specifically
18 nicotine, are habit-forming as opposed to
19 addictive?
20 A. Not to my knowledge.
21 Q. Has there been anyone that you're aware of at
22 RJR that expressed the opinion that cigarettes were
23 more addictive than they were habit-forming?
24 A. I don't remember anyone saying that.
25 Q. Have you read literature where scientists

1 have expressed the opinion that cigarettes are
2 addictive as opposed to habit-forming?

3 A. Yes. As I talked about earlier with you, we
4 responded to an article by West and an article by
5 Stolerman.

6 MR. MAISTROS: Excuse me, off --
7 can we go off the record a minute?

8 VIDEOGRAPHER: We're going off the
9 record at 3:51 p.m.

10 (DISCUSSION OFF THE RECORD)

11 VIDEOGRAPHER: We're going back on
12 the record at 3:52 p.m.

13 MR. GOTTLIEB: I would like to
14 state for the record that I came from New York to
15 participate in this deposition on behalf of the
16 New York class, that the deposition is apparently
17 going to last beyond this day, and that I would
18 like to reserve my rights to ask non-duplicative
19 questions of the witness when Mr. Maistros finishes
20 his examination of the witness.

21 MS. FEE: We would have no
22 objection to Mr. Gottlieb asking questions,
23 assuming that the deposition continues. He can
24 certainly ask his questions today, if he'd like;
25 it's only ten minutes to 4:00. I understand that

1 he has to leave to catch a plane. However, we've
2 made this witness available today.
3 If the deposition does go another
4 day, we have absolutely no objection to your asking
5 him questions.

6 MR. GOTTLIEB: I understand this is
7 not with agreement, but, I mean, my position is
8 that I have a right to do that, whether or not the
9 deposition goes beyond today, for the Arch case.

10 My presence here is to increase the
11 efficiency of the overall discovery in the various
12 cases, and in no way was I intending to prejudice
13 my right to ask questions by virtue of the fact
14 that counsel in the Arch case needs their entire
15 day for asking questions relative to their case.

16 Could we go off the record just for
17 a second?

18 VIDEOGRAPHER: We're going off the
19 record at 3:53 p.m.

20 (DISCUSSION OFF THE RECORD)

21 VIDEOGRAPHER: We're going back on
22 the record at 3:56 p.m.

23 BY MR. MAISTROS:

24 Q. Dr. Pritchard, are you aware of any
25 publications, journals, articles that have been

1 critical of the DSM standard related to nicotine
 2 dependence?
 3 A. Not specifically to that.
 4 Q. And you have never been requested to
 5 personally critique the DSM for nicotine
 6 dependence?
 7 A. Not that I recall.
 8 Q. Is this the first time that anyone took you
 9 through that process, such as I just did, to ask
 10 you questions about what you thought about that
 11 DSM?
 12 MS. FEE: Are we talking about IV
 13 specifically?
 14 MR. MAISTROS: Yes?
 15 MS. FEE: Or any of them?
 16 MR. MAISTROS: This one.
 17 THE WITNESS: This is the first
 18 time I -- as I recall, that I've seen DSM-IV.
 19 BY MR. MAISTROS:
 20 Q. Did anyone ask you to critique the
 21 predecessor versions of this DSM related nicotine
 22 dependence?
 23 A. Not that I recall.
 24 Q. I'm going to take you through a list of what
 25 I'll call research topics, for lack of a better

1 word, and ask you if you've ever been involved in
 2 any or are aware if RJR was involved in any
 3 research topics related to various items, okay?
 4 A. Sure.
 5 Q. And if you -- rather than repeating it each
 6 time, if you can just tell me, "Yes, I was," or "I
 7 wasn't, but I heard so-and-so was," so I don't have
 8 to repeat that every time. Okay?
 9 A. Say that again, please.
 10 Q. If you were involved in a research project
 11 that involved a topic, I'd like you to just to tell
 12 me, "It was me," or, "No, I wasn't, but so-and-so
 13 was," so I don't have to ask you each time were you
 14 or somebody else --
 15 A. I understand now.
 16 Q. Try to shorten this up.
 17 The first one would be the chemical
 18 makeup of tobacco.
 19 A. No. And, no, I'm not aware of who.
 20 Q. How about the chemical makeup of the tobacco
 21 smoke?
 22 A. No.
 23 Q. I believe I asked this previously, but just
 24 so we go through the list, how about the additives
 25 that are used in tobacco?

1 A. No.
2 Q. And you testified that it's your belief that
3 somebody at least was studying filters?
4 A. I would presume, since we're a cigarette
5 company, we must have somebody who knows something
6 about filters. Most of our cigarettes have them.
7 Q. If somebody was studying the psychological
8 effects of nicotine, it would be in your
9 department, at least since '86?
10 A. Yes.
11 Q. And you would know about any psychological
12 studies that were done that involved analysis of
13 nicotine, at least since '86?
14 A. I would be aware of all the studies involving
15 looking at the effects of -- psychological effects
16 of nicotine in humans.
17 Q. How about animals?
18 A. No.
19 Q. Why wouldn't you be aware of those?
20 A. I don't do animal research. I'm allergic to
21 rats, for one thing.
22 Q. Is there a department or division at RJR that
23 would do nicotine research involving animals, that
24 you wouldn't be aware of?
25 A. I believe they're doing some -- Lippiello's

1 group has some animals and they're doing behavioral
2 testing of our patented analogues.

3 Q. And what's an analogue?

4 A. An analogue is a compound that's -- would
5 have the same beneficial effect of nicotine upon
6 behavioral performance but might be longer acting
7 and not affect heart rate and therefore would be a
8 potential therapeutic to treat dementia and
9 Alzheimer's disease.

10 That program is under Pat Lippiello, and
11 I -- you could find out from him more than from me.

12 Q. But the "analogue" is what I was interested
13 in, the definition of "analogue". Are you saying
14 it's -- focuses upon a similar compound with more
15 beneficial effects?

16 A. No. If you're treating a person with
17 Alzheimer's disease, you would want a compound that
18 would help their memory, for example, so you would
19 want that effect of nicotine. An increase in heart
20 rate would perhaps be an undesirable side effect in
21 an elderly person, so you would not want that
22 typical effect of nicotine.

23 You would maybe want it to -- you know,
24 as we said, nicotine distributes out of the blood
25 very fast. You might want something that had a

1 little longer action as a therapeutic to treat
2 Alzheimer's disease.

3 Q. I don't want to focus on Alzheimer's, but is
4 there -- can you talk about analogue, separate and
5 apart from Alzheimer's?

6 A. I have told you everything I know about what
7 a nicotine analogue is. I don't -- I couldn't draw
8 the structure of nicotine or tell you chemically
9 what --

10 Q. Is there such thing as an analogue that would
11 replace nicotine in cigarettes --

12 A. No, it's never been considered. Never.

13 Q. Explain to me why. Is that a silly thought
14 that: Why are you asking that question? Is it --

15 A. I can speculate that we already can sell
16 cigarettes. We don't need that -- I mean, you
17 know, I -- I don't think they'd want to do that.
18 The goal of that program from the start was, you
19 know, to develop a possible therapeutic agent for
20 treating Alzheimer's disease.

21 Q. And we're talking specifically about the
22 nicotine in tobacco? Is there a nicotine analogue?

23 A. The structure of the nicotine in tobacco is
24 nicotine. Nicotine has the same structure, no
25 matter where it is.

1 Q. So, if this program was successful, then the
2 end result would be that you could use nicotine for
3 the positive purpose of helping Alzheimer's
4 patients?

5 A. Well, again, Pat's in charge of this program;
6 I'll defer you to him. My understanding is we
7 would seek he a partner in the pharmaceutical
8 industry to, I don't know, acquire our patents or
9 whatever.

10 MS. FEE: I just want to state, I
11 know we're -- I know that we're all subject to the
12 protective order here, but this is highly, highly
13 sensitive. So -- in terms of competitive issues.
14 So you can -- you know, we can go a little bit down
15 this road, but --

16 BY MR. MAISTROS:

17 Q. Has Lippiello published in journals the
18 potential positive effects of nicotine on
19 Alzheimer's patients?

20 A. He's published a lot of stuff in scientific
21 journals. I don't know if he's published on that
22 specific topic.

23 Q. And do you know if there's been any
24 discussion of what the effect on the FDA regulation
25 of tobacco would be if there was a product

1 developed that nicotine could be used in to help
2 Alzheimer's patients?

3 A. Nicotine itself?

4 Q. Yes.

5 A. My understanding is that the pharmaceutical
6 industry would not be that much interested in
7 nicotine itself, because it does increase heart
8 rate, it has a relatively short duration reaction,
9 plus it's simply not -- it's not patentable.

10 Q. So if you could develop a product that could
11 duplicate nicotine's effects on memory performance
12 without the corollary effect on heart rate, that
13 would be a good thing?

14 A. That would be a potential therapeutic agent
15 to treat Alzheimer's disease, in maybe a little
16 longer duration; I'm not sure in that area.

17 Q. What would prevent the company, then, for
18 example, from substituting nicotine with the
19 analogue, to enhance the performance of tobacco
20 without the corollary effect on the rate of the
21 heart?

22 A. As I understand the FDA definition of a drug,
23 that we went over this morning, adding the analogue
24 to tobacco would be adding something to alter the
25 structure and function of the body. Whereas,

1 nicotine occurs naturally in the tobacco leaf, just
2 like caffeine occurs naturally in coffee.

3 You know, you have to ask Lippiello
4 about the analogue program. He's the head of it.
5 I just, you know, have very tangential knowledge of
6 what they do.

7 Q. Do you know what reconstituted tobacco is?

8 A. Reconstituted tobacco? I know I've heard the
9 term before. I don't know. I'm not sure.

10 Q. Do you know if there are any drugs added to
11 the tobacco leaf once it's harvested?

12 A. Not to my knowledge.

13 Q. Do you know if the tobacco leaf is cleaned
14 after it's harvested?

15 A. I don't know.

16 Q. Do you know what role, if any, ammonia plays
17 in the tobacco process?

18 A. No, I don't.

19 Q. Have you read any articles or research on the
20 role of ammonia in tobacco?

21 MS. FEE: Object to the form.

22 THE WITNESS: Any articles or
23 research? No, I have not.

24 BY MR. MAISTROS:

25 Q. Have you ever heard of Shop Talk, Scientific

1 Literature, Psychology Today, articles that discuss
 2 the interaction between ammonia and tobacco?
 3 A. No.
 4 Q. Do you know what an alkaloid is?
 5 A. Alkaloid -- it's a certain type of chemical.
 6 I'm not a chemist.
 7 Q. Do you know if nicotine is an alkaloid?
 8 A. Umm, yes, it is. I believe.
 9 Q. But none of your research has focused on
 10 alkaloids, per se, in tobacco?
 11 A. Well, if nicotine is an alkaloid, I've
 12 obviously studied the effects of nicotine yield.
 13 I've not studied any other alkaloids.
 14 Q. You've studied the pharmacological effects of
 15 nicotine?
 16 MS. FEE: Object to the form.
 17 THE WITNESS: Yeah.
 18 BY MR. MAISTROS:
 19 Q. Correct?
 20 A. Yes.
 21 Q. Have you compared the pharmacological effects
 22 of nicotine in relation to any other drug?
 23 MS. FEE: Object to the form.
 24 THE WITNESS: First of all,
 25 nicotine in cigarettes is not a drug.

1 MR. MAISTROS: That's a slip of the
2 tongue.

3 MS. FEE: Yeah, right.

4 THE WITNESS: As I mentioned
5 before, we did a study looking at nicotine and
6 caffeine interaction and published that.

7 No.

8 BY MR. MAISTROS:

9 Q. Have you heard of nornicotine?

10 A. Yes.

11 Q. What is that?

12 A. I believe it's a metabolite of nicotine.

13 Q. Have you done any studies that would focus
14 upon interrelationship between nicotine and
15 nornicotine?

16 A. No.

17 Q. Is that something that Mr. Lippiello would be
18 more knowledgeable of? Do you know?

19 A. Nicotine metabolism -- I don't know how much
20 Pat knows about nicotine metabolism.

21 Q. When you use these cigarettes in the studies
22 you do, I know you know -- or you don't know, but
23 somebody knows the nicotine yields of the
24 cigarettes. Does somebody else know, whether it's
25 disclosed to you or not, the chemical makeup of

1 those cigarettes, separate and apart from nicotine?
 2 A. Not to my knowledge, no.
 3 Q. Does somebody know, for example, the type of
 4 tobacco used in your test cigarettes? Separate and
 5 apart from nicotine yield.
 6 A. It's just tobacco. I mean -- maybe I don't
 7 understand the question.
 8 Q. Well, you hand five people sitting at this
 9 table cigarettes, and then ask them a series of
 10 questions. You know or you can find out what the
 11 nicotine yield is, as you said?
 12 A. Yeah, we measure the nicotine yield.
 13 Q. Are there any other similar tests that would
 14 measure any other aspects of that tobacco?
 15 A. Other tests? What do you mean by "aspects"?
 16 Q. Whether or not there was anything other than
 17 nicotine that differentiated the five cigarettes?
 18 A. I don't know.
 19 Q. Do you know Dr. Schwartz?
 20 A. First name?
 21 Q. I don't know. He's a psychiatrist.
 22 Testified in this case as an expert.
 23 A. I know a Dr. Marvin Schwartz; he was one of
 24 my professors at the University of Cincinnati.
 25 That's the only Dr. Schwartz I know.

1 Q. Have you read any studies or done any
2 research yourself to determine the actual chemical
3 makeup in what you referred to earlier as the
4 molecular structure of nicotine per se, or is that
5 out of your area?

6 A. No.

7 Q. You mentioned the performance enhancing
8 aspects of nicotine, and the three main ones, you
9 thought -- we won't go over the topics again, but
10 did you, in your research, come across any effects
11 that nicotine had that would be viewed as
12 detrimental as opposed to enhancements, in terms of
13 performance?

14 A. I have not seen any in my studies.

15 Q. In your studies. Have other people done
16 studies to determine if nicotine has adverse
17 consequences for performance?

18 A. I'm aware of one study where they tested
19 nonsmokers with four milligram nicotine gum, which
20 has been shown in the literature by other studies
21 to almost always induce nausea in nonsmokers.

22 So, my conclusion about that study is
23 that it's an anomaly, like I said before. Their
24 performance was worse, not because nicotine
25 impaired performance in those subjects, but because

1 it made them sick.

2 Q. Are you currently doing any research to
3 further support the proposition that nicotine
4 enhances performance?

5 A. We currently are not conducting any studies
6 at the moment. Like I said, we finished this one
7 study and we're analyzing the data from that.

8 Q. If it was conclusively established that -- I
9 don't know what universe you would pick, but the
10 universe of scientists that you could rely upon.
11 If it was conclusively established that that
12 universe of scientists could all agree that you're
13 right, that nicotine enhances performance in the
14 three areas you mentioned, reaction, performance
15 over time -- what was the third one? The third
16 area of performance?

17 A. Memory.

18 Q. Memory.

19 A. Although memory is a complex issue, as I said
20 before, because so many variables can enter into
21 it.

22 Q. Let's assume you're right, the medical -- or
23 the scientific community agrees that it's a given
24 that those three things occur with nicotine intake.
25 Would the fact that nicotine had that effect change

1 at least your individual position such that you
2 would resume smoking if that could be conclusively
3 establish?

4 A. No. My personal choice was that the health
5 risks of smoking outweighed these psychological
6 benefits. But that was my own individual choice.

7 Q. Have you done any studies to determine if
8 general population, including me, might choose to
9 commence smoking if I was convinced that it could
10 enhance my performance, memory and long-term task
11 functions?

12 A. No.

13 Q. Do you know if anyone at RJR is doing such
14 studies?

15 A. You mean marketing studies, that if we
16 advertise that smoking enhanced --

17 Q. Forget marketing. Just studies on human
18 behavior. If you could study human behavior and
19 determine whether people would commence smoking if
20 they were convinced that those three performance
21 aspects could be enhanced, whether they would
22 commence smoking?

23 A. Commence? No. No. No.

24 Q. Done any studies to determine whether people
25 would be less inclined to stop smoking if they knew

1 that by smoking they can increase their performance
2 in certain areas?

3 A. No.

4 Q. Why is it important to know from a -- other
5 than just it's interesting, that nicotine enhances
6 performance in those three areas?

7 A. It's an interesting scientific question. I
8 was hired to do basic scientific research, so
9 that's one area I pursued.

10 Q. Do you know if anyone was hired to do basic
11 scientific research on the issue of is it possible
12 to remove nicotine or remove it to minimal levels
13 and still not alter the general population's desire
14 to smoke?

15 A. Remove nic -- research to remove nicotine --

16 Q. Specific research to determine if nicotine
17 can be removed from tobacco or reduced to such a
18 level, with the consequence being that it would not
19 have an adverse effect on the individual's desire
20 to smoke.

21 A. No. I'm still not sure I understand what
22 you're saying, but ...

23 Q. Well, we can agree, can we not, that nicotine
24 plays some role in an individual's desire to smoke?

25 A. I agree that nicotine is part of the package

1 of the sensory effects of cigarettes. The ritual
2 associated in the mild pharmacology for nicotine
3 tightly, tightly intertwined.

4 Q. Do you know if RJR has done any research to
5 determine if nicotine can be reduced to negligible
6 levels or altogether removed from tobacco, without
7 affecting an individual's desire to smoke?

8 A. Well, we measured -- in the one study I told
9 you about, we measured the ability of predeposed
10 smoking to effect that measure in this study where
11 we systematically varied the yields. So, if I
12 understand what you're asking, I guess that's a
13 yes.

14 Q. Are you aware of any other studies that were
15 done?

16 A. No.

17 Q. If one of the effects of nicotine is to
18 increase the heart rate, and I think you said that
19 would not be good in old people, would you agree
20 with me it wouldn't be good in any person?

21 A. I think young people -- the heart rate
22 increase in -- with nicotine is like nothing
23 compared to jogging, say. I don't think it's a
24 problem.

25 Q. So, from a heart rate -- just heart rate,

1 focus solely on heart rate, you don't think it
2 would be a problem, for example if you're -- how
3 old is your oldest daughter, 15?

4 A. Fifteen.

5 Q. She started smoking and the consequence was
6 increased heart rate, that wouldn't be a concern of
7 yours?

8 A. I would advise her not to smoke, but not
9 based upon heart rate.

10 Q. Do you know if RJR did any studies, you
11 involved or not, that investigated the effect of
12 nicotine depending upon the age of the smoker?

13 A. We -- we did one study where it was a
14 follow-up to an early -- earlier study we
15 published, where we looked at the effects of
16 nicotine on performance in a group of elderly
17 smokers.

18 Q. What's elderly?

19 A. I don't remember the exact age ranges. It
20 was probably something like 60 and over.

21 Q. Do any of your test subjects that you use,
22 are they categorized by age?

23 A. Our age range for most of our studies has
24 been 21 to either 35 or 36.

25 Q. And I assume that you don't do tests on

1 people under 21?

2 A. I think, at one time in the past, the range
3 was 18 to 35 for some earlier studies.

4 Q. Pre you being employed or --

5 A. No. Post me.

6 Q. In your department or outside?

7 A. In -- in the studies I did.

8 Q. Why was it increased from 18 to 21?

9 A. The company's very sensitive about the issue
10 of the sole allegation that we try and market to
11 teenagers. So even though 18 is the legal smoking
12 age in North Carolina, we felt it would be a good
13 idea to increase that to 21. It would have no
14 impact on the science whatsoever.

15 Q. Did any of your testing attempt to quantify
16 or analyze how age might play a role in the effect
17 of nicotine on the human body? Other than that one
18 you mentioned where you tested elderly --

19 A. How age might affect nicotine?

20 Q. Right. In other words, any of your studies
21 at all --

22 A. You're talking about metabolism and nicotine?

23 Q. Any of the studies that you did -- let's take
24 that first. Any of the studies that you did, does
25 the age of the smoker play any role in any of the

1 results you were looking at?

2 A. Other than this one study where we did have a
3 group of elderly smokers, the data were not broken
4 out by age.

5 Q. And your EEG studies, is that -- what does
6 EEG stand for?

7 A. Electroencephalogram.

8 Q. In any of those studies, did you believe that
9 age was a factor in any of your results?

10 A. Age is -- is a very interesting topic, but
11 it's not what I was studying at the time.

12 Q. So that your results, from a scientific
13 standpoint, would have been the same if you were
14 testing 18-year-olds versus 40-year-olds on EEG
15 activity?

16 A. I don't know. I haven't done that.

17 Q. You never looked at that data to see if
18 there's any correlation or --

19 A. I never broke the subjects out by age range
20 in any way.

21 Q. And this isn't a test of your knowledge, but
22 I'm just thinking here. If you tell me it enhances
23 performance, I would imagine, although I haven't
24 done any research on it, that there's a certain age
25 level where all smokers' or nonsmokers' performance

1 drops off. Is that true?

2 A. I'm not an expert on performance and aging.
3 I don't know the answer.

4 Q. Take humans out of the loop. Is there -- do
5 you know if there's been any studies done to
6 determine the effects of nicotine on animals,
7 depending upon the age of the animal?

8 A. I'm not aware of them, if there are.

9 Q. Tell me in layman's terms how I would
10 characterize the specific focus of your research
11 insofar as nicotine is concerned.

12 A. We were interested in studying the
13 psychological effects of cigarette smoking. And as
14 I've said numerous times now, nicotine pharmacology
15 is one component of that, along with the other two
16 that I mentioned.

17 So, we embarked upon the program of
18 basic research in that area, which is what I was
19 hired to do.

20 Q. Is it unfair of me to suggest that the age of
21 a particular test subject could have an effect on
22 the psychological effects that you were studying?

23 A. That would be an interesting thing to study
24 systematically. I don't know the answer.

25 Q. Have you done any tests to determine if

1 psychological effects of cigarette smoking vary,
 2 dependent upon any characteristic unrelated to
 3 nicotine? Male? Female? Race?
 4 A. In some of my earlier studies, we had both
 5 men and women. I really don't recall whether I
 6 looked at that. Typically, in psychology, to find
 7 gender differences, you need large, large numbers
 8 of subjects. And we just weren't equipped to run
 9 studies that had hundreds of subjects. So I don't
 10 remember, there.
 11 What was the other -- no, I've never
 12 looked at race.
 13 Q. Have any of your studies or research ever
 14 been used in any litigation, that you're aware of,
 15 to defend tobacco companies?
 16 A. Not that I'm aware of.
 17 Q. Have you ever been interviewed with respect
 18 to how anything you've been doing might be used to
 19 assist the tobacco companies in the defense of
 20 cigarette litigation?
 21 A. Yes, I have.
 22 Q. And what setting was that?
 23 A. It was in response to the FDA something, a
 24 large document.
 25 Q. Maybe the ETS?

1 A. No, it wasn't ETS. It was their most recent
2 one. I'm blocking on the name.
3 Q. Regulation of nicotine as a drug?
4 A. Yes.
5 Q. What did you do?
6 A. There were portions in there, as I recall,
7 where claims were made that nicotine was solely in
8 the cigarette for pharmacological purposes, things
9 like that. So I worked with one of the RJR
10 attorneys and another scientist, who was actually
11 more expert in that area than I am.
12 Q. Who's the other scientist?
13 A. I mentioned his name before: Jim Walker.
14 Q. I'm sorry, I didn't catch that.
15 A. Jim -- James Walker.
16 Q. Had you, prior to this -- and this, I assume,
17 is in the last three years?
18 A. This was recent, yeah. I don't know exactly
19 when they came out.
20 Q. Are you talking about post decision of --
21 A. Apparently the -- RJR was writing a response
22 to whatever had been written by the FDA, to submit
23 it to whoever they submit it to.
24 Q. Did you actually draft a portion of that
25 response or just critique it?

1 A. I just wrote general comments about the
2 sections that he wanted me to read.

3 Q. Did they end up in any final form that you
4 saw that was submitted?

5 A. I believe the -- I'm not sure if the
6 industry -- or RJR's response has been sent or not.
7 If it has, I haven't read it and checked, you know,
8 to ring a bell, that he's using my phrasing here.
9 That was something I really wasn't interested in.
10 And I did it, and it was over, and I forgot about
11 it.

12 MR. MAISTROS: Assuming it's not
13 subject to some attorney/client privilege or
14 something, I request that be produced, just -- not
15 the whole document. I'm sure that's a public
16 record.

17 MS. FEE: I know we've obviously --
18 I would assume we've produced Reynolds' response to
19 the FDA proposal.

20 MR. MAISTROS: What I'm looking for
21 is --

22 BY MR. MAISTROS:

23 Q. Would you know, if I had the proposal in
24 front of you, what you contributed to it?

25 A. Probably not.

1 Q. What do you recall that you contributed to
2 it?

3 A. Well, we said we thought there was evidence
4 that nicotine did play a sensory role. So I
5 assume, if you cited this one study in there, that
6 might have been my suggestion. Because we showed
7 that, you know, it does have a sensory role and it
8 does affect sensory variables.

9 Q. Is there any other role that nicotine plays?
10 I mean, you said it has a sensory role.

11 A. Yes. As I said many, many times now today,
12 nicotine -- mild pharmacology is part of the
13 package of the taste of the cigarette and
14 manipulation of the cigarette. The ritual.

15 Q. Did you cite to any studies in your response
16 to the allegation that nicotine was solely in a
17 cigarette for pharmacological purposes?

18 A. As I recall, what -- that was one of the
19 theses of the FDA report, so the data in my
20 published study showed that that wasn't true,
21 nicotine did play a sensory role also.

22 Q. I would assume from your testimony, then,
23 that you would disagree with the FDA's
24 classification of nicotine as a drug?

25 A. I've already stated that. Nicotine in

1 cigarettes.

2 Q. Nicotine out of cigarettes is a drug?

3 A. If you give somebody a pure IV injection of
4 nicotine, then it's a drug. You're introducing
5 nicotine into the body all over its structure and
6 function, outside of some type of natural context
7 of the product or whatever.

8 Q. In the Premier program that you testified
9 about briefly, I've read some literature in a
10 monograph you referred to. Is it a fair
11 characterization to say that, as a result of that
12 product, the -- there was a dramatic reduction in
13 the release of chemicals associated with smoking
14 that cigarette? Is that something you're familiar
15 with, that you read also?

16 A. My understanding of Premier was that the
17 aerosol produced had drastically reduced biological
18 activity, as my toxicologist friends use the word
19 "biological activity," to refer to the screening
20 tests.

21 Q. Less mutation of genes?

22 A. Yes.

23 Q. As I would understand it, correct?

24 A. Apparently it involves genetic stuff like
25 that, yeah.

1 Q. Did you do any testing, specifically related
 2 to Premier, in terms of the work you were doing on
 3 normal tobacco?
 4 A. As I've already stated, I did no testing or
 5 work on Premier whatsoever.
 6 Q. And none on Eclipse?
 7 A. No.
 8 Q. Or any other similar cigarette?
 9 A. No.
 10 Q. Are you aware of other cigarettes, by any
 11 other name or code name, that were similar to
 12 Premier that RJR was working on or is working on?
 13 A. No, I'm not.
 14 Q. Do you know if RJR is currently attempting to
 15 develop any cigarette product similar to Premier?
 16 A. Similar to Premier? Similar in what way?
 17 Q. Is RJR attempting, to your knowledge, to
 18 develop any product that is similar to the concept
 19 of Premier to reduce biological activity?
 20 MS. FEE: Object to the form.
 21 THE WITNESS: Eclipse.
 22 BY MR. MAISTROS:
 23 Q. What's your knowledge of Eclipse?
 24 A. My knowledge of Eclipse is that it produces
 25 an aerosol that also has reduced biological

1 activity. And they were trying hard to make it
2 taste more like a cigarette so it would be more
3 acceptable to consumers.

4 Q. Does Eclipse burn like a cigarette?

5 A. I've never smoked an Eclipse. I don't --

6 Q. Have you ever seen one?

7 A. -- know.

8 It doesn't burn down, like Premier did
9 not burn down. It smells -- Premier had this sweet
10 smell. I don't know what it came from, but ...

11 Eclipse does smell a little bit more
12 like a cigarette, to me.

13 Q. Does it emit sidestream smoke, do you know?

14 A. I don't know.

15 Q. Have you seen any studies on the chemical
16 properties of Eclipse?

17 A. No, I have not.

18 Q. What department is Eclipse being developed
19 in?

20 A. I don't know.

21 Q. Do you know who's in charge of Eclipse?

22 A. John Robinson has done some work on Eclipse
23 and he could tell you that. I -- I don't know. Or
24 he -- let me say he might be able to tell you that.
25 Or I'd refer you to Dr. Burger on questions of

1 administration.

2 Q. Do you know if Eclipse is being passed out at
3 RJR for free to the employees?

4 A. You see people with Eclipse and smoking it.
5 I really don't know, though.

6 Q. Have you ever been asked to do any studies of
7 any nature relating to environmental tobacco smoke?

8 A. Yes. Not for me to do, but to work on a
9 team.

10 Q. Okay. What team?

11 A. Who were the people on the team?

12 Q. What was the name of the project?

13 A. I don't recall that it had a name.

14 Q. When was this?

15 A. This was maybe '93, something like that.

16 It's in press in the journal Indoor Air, my
17 involvement in that study.

18 Q. What was your role in that study?

19 A. They wanted to see if the increasing levels
20 of particulates, or however you measure ETS, would
21 have an impact on peoples' feelings of anxiety and
22 on their performance. Which is sort of my area.

23 Q. Who's "they"?

24 A. The people who were -- wanted to do the
25 project asked me to work on it with them.

- 1 Q. What division are these people in?
- 2 A. Well, the head of the -- I don't know at the
- 3 moment, to be honest with you.
- 4 Q. Well, is it research and development or
- 5 marketing?
- 6 A. It's research and development.
- 7 Q. Who are some of the people, at least, that
- 8 you can sit here and off the top of your head tell
- 9 me that were involved in that project?
- 10 A. James Walker.
- 11 Q. What's his title?
- 12 A. You could -- you know, you could look at the
- 13 authors and that's the people who were involved.
- 14 Q. It's in press. Do you mean it's already
- 15 published somewhere?
- 16 A. It's been accepted by the journal and it's --
- 17 it will appear in a future issue when -- they go
- 18 through the other ones before.
- 19 Q. Okay. James Walker?
- 20 A. Paul Nelson.
- 21 Q. Dr. Simmons?
- 22 A. No.
- 23 Q. Lippiello?
- 24 A. No.
- 25 Q. Reynolds?

1 A. John Reynolds? No.
2 Q. He's gone, right?
3 A. He retired last year, like I said.
4 Melanie Stancil. The reason I'm having
5 trouble remembering is because my role was sort of
6 suggest: You measure this, you measure it at these
7 times. And then, when the study was finished, I
8 got the data back to analyze. I wasn't involved in
9 running subjects or, you know, recruiting or
10 anything. I made suggestions in how to measure
11 these things that they were interested in.
12 So, you know, I -- who else?
13 There were two scientists outside RJR
14 who are academics; I cannot remember their names.
15 Q. Did the analysis focus upon the effect of ETS
16 on smokers or nonsmokers or both?
17 A. I don't remember whether the subjects were
18 smokers or nonsmokers.
19 Q. I assume, ethically, you would not subject
20 nonsmokers to studies on ETS as part of a test?
21 A. I don't know what the policy is on that.
22 Q. Well, you are certain that there's a policy
23 that you would not use test subjects that didn't
24 already smoke for your smoking studies, correct?
25 A. That's correct.

1 Q. You don't know if there's a similar policy on
2 testing nonsmokers and the effect of ETS on those
3 nonsmokers?
4 A. I do not know.
5 Q. Who would know that? Do you know?
6 A. I assume Jim would know.
7 Q. Walker?
8 A. Yes.
9 Q. Did you --
10 A. He was the first author on the study, so ...
11 Q. Did you find that ETS had a positive effect
12 on anxiety and performance?
13 A. No, we did not.
14 Q. Did you find it had no effect?
15 A. Yes.
16 Q. Did you reach any conclusions as to why there
17 was no effect?
18 A. The -- I'm trying to remember what Jim -- I
19 was like next to the last author or something. I
20 don't think I personally speculated about why it
21 had no effect.
22 Q. Is it an oversimplification for a layman to
23 say that mainstream smoke has a greater effect on
24 anxiety and performance than sidestream smoke?
25 A. We -- in this study, I don't think it was

1 exactly sidestream smoke. It was what's called
2 environmental tobacco smoke, which is both
3 sidestream smoke and exhaled smoke.

4 Q. Right.

5 A. And we didn't find any effect. I mean,
6 that -- you know, what you find is what you find.

7 Q. Well, when you were doing your own studies,
8 forget ETS, did you find that mainstream smoke or
9 sidestream smoke or the combination affected
10 performance and anxiety?

11 A. Well, in as much as they were in a room. You
12 know, we didn't vent the sidestream smoke out of
13 the room. I believe, if you look at -- I don't
14 know what the numbers are, but if you look at the
15 concentrations of mainstream versus smoke coming
16 off the end and how much of that the person
17 actually inhales, I would say the contribution
18 would be negligible.

19 The fact that when the person -- we
20 found, when a person doesn't inhale mainstream
21 smoke but is exposed to ETS, that they -- we didn't
22 find any effects that would support that.

23 Q. Do you know what the control parameters were
24 of this test or research? In other words, how long
25 the people were in the room?

1 A. I don't remember.

2 Q. The -- as a scientist lay person, if I gave
3 you that hypothesis before doing a second of
4 research, would your natural reaction be that there
5 should be some effect on anxiety and performance by
6 ETS?

7 A. I didn't have apriori hypothesis there. I
8 just didn't, you know. They really wanted to do
9 this project and they wanted to measure things like
10 that and I said, yes, I'll help you.

11 Q. Was that all that was measured, performance,
12 anxiety or were things such as peoples'
13 irritability to secondhand --

14 A. Yeah, they filled out ballots rating their
15 sensory irritation and --

16 Q. Is all that in the study --

17 A. Yes, it is.

18 Q. -- that's about to be published?

19 A. Yes, it is.

20 Q. And again, what was the purpose of this
21 study?

22 A. To gain scientific knowledge about the
23 effects of environmental tobacco smoke in -- on
24 humans.

25 Q. Do you know if -- this was to determine, I

1 assume, positive effects of ETS? Prestated goal
2 was to determine if it could --

3 A. No, not at all.

4 Q. Okay. Forget positive then.

5 The prestated goal was to determine what
6 effect, positive or negative, on performance and
7 anxiety?

8 A. It was to determine the effect, whatever the
9 effect was.

10 Q. Well, did it study the health effect?

11 A. The health effect?

12 Q. For example, did it study whether there was
13 an increase in chance of lung cancer associated
14 with ETS?

15 A. That study? No.

16 Q. So I'm trying to focus on -- I use the words
17 because you did, anxiety and performance. But if
18 it wasn't limited to that, tell me what else was
19 taken -- analyzed.

20 A. They filled out these ratings of irritation.
21 I -- yeah, I really don't remember specifically
22 what -- whether there were more than one ballot,
23 what the variables were they rated, et cetera,
24 et cetera.

25 Q. Okay. But there was no -- as far as you're

1 aware, in this particular test there was no
2 analysis of health effect of ETS?
3 A. What do you mean by "health effect"?
4 Q. Increased heart rate --
5 A. No, that was not measured.
6 Q. Long-term exposure studies in terms of lung
7 cancer, emphysema, nothing like that?
8 A. No.
9 Q. Do you know if RJR has done any such studies
10 on ETS to assess health risks associated with ETS?
11 A. I believe they have.
12 Q. Do you know who would do those studies?
13 A. Sam might be able to tell you. Or
14 Dr. Burger. I don't know who would be in charge of
15 those studies.
16 Q. Sam?
17 A. Simmons.
18 Q. And that was -- that's your one and only
19 experience with any sort of research related to
20 ETS?
21 A. Well, no. As I mentioned this morning, I was
22 involved in a project called VRP, which was to
23 develop a product that had reduced sidestream
24 smoke.
25 Q. Is there a William Simmons versus a Sam

1 Simmons?

2 A. I believe Sam is his middle name, and he goes
3 by his middle name.

4 Q. There is only one doctor?

5 A. As far as I know. There's a Paula Simmons,
6 but she's female and African/American.

7 Q. You mentioned the positive effects that
8 you've -- you've done studies on to determine that
9 nicotine has on the body, the three you mentioned.
10 I'm not sure I classified those as positive health
11 benefits; you may. Have you done any studies to
12 determine positive health benefits that nicotine
13 has on the human body?

14 A. I've done no studies.

15 Q. Do you know of anyone else at RJR that has?

16 A. Studies of positive health effects from
17 nicotine?

18 Q. Yes.

19 A. No.

20 Q. Do you know of any studies done anywhere that
21 have established positive health benefits of
22 nicotine?

23 A. I'm aware in their literature there's an
24 epidemiological reverse risk between smoking,
25 Parkinson's Disease and, I believe, colitis. This

1 is just from my reading, you know, in the
2 literature. And Alzheimer's disease.

3 Those are epidemiological studies, you
4 know. I'm not aware of any -- anything else. I
5 don't know -- I don't remember who did them or
6 anything.

7 Q. The -- and when you say Parkinson's Disease,
8 somebody did a study somewhere that showed a
9 correlation between the incidence of Parkinson's
10 Disease and cigarette smokers?

11 A. No. Several people have done studies showing
12 that the risk of developing Parkinson's Disease is
13 less in smokers than nonsmokers.

14 Q. Is that because nicotine? Is that because,
15 what? Do you know?

16 A. I don't know.

17 Q. And would that be the same as -- your
18 recollection would be the same for Alzheimer's
19 disease?

20 A. Yes. I think there are fewer studies there,
21 though, than in the case of Parkinson's.

22 Q. Have there been --

23 A. These are all non-RJR studies.

24 Q. Right.

25 And you're not aware of any, then,

1 current or past RJR studies, that would have been
2 studying the health benefits of nicotine?
3 A. No.
4 Q. Do you know what effect heat has on nicotine?
5 A. No, I do not.
6 Q. Do you know ...
7 A. My guess would be it could take a lot of
8 heat. Because you obviously light a cigarette and
9 there's still nicotine in the cigarette.
10 Q. Well, I guess my point is --
11 A. I mean, that's fairly obvious. Anybody can
12 figure it out.
13 Q. Do you know if studies were done to
14 determine, for example, if there was more nicotine
15 released when tobacco was burned in a traditional
16 cigarette versus heated in a Premier product?
17 A. I don't know specifically.
18 Q. In these summaries that you did, at least the
19 yearly summaries that you turned in or turned over,
20 gave to whoever you gave them to, do you know if
21 those summaries in some form, distilled or
22 otherwise, got whittled down to summaries that
23 ended up with the CEO?
24 A. I don't know.
25 Q. Were there ever any sort of annual meetings,

1 that you're aware of, where the CEO or the board of
2 directors would be apprised of the current status
3 of research that was going on at the company?
4 A. I don't know.
5 Q. You never made any such presentations, other
6 than the one you mentioned?
7 A. No. Those guys were way above me.
8 Q. The summaries that you did eventually,
9 though, made their way into the hands of your
10 supervisor?
11 A. Which summaries are you referring to?
12 Q. The year-end summaries. Forget the weekly
13 ones. The year-end summaries that --
14 A. Yes. Yes. It was designed to aid the
15 manager's recollection of what I had done the past
16 year.
17 Q. And do you know, personally, what the
18 managers did with your summaries?
19 A. My understanding is they used them to help
20 write my performance evaluation, to remind them if
21 they had forgotten I'd done this thing.
22 Q. Do you know if they passed them on to anyone?
23 A. My performance evaluations are on file in the
24 personnel office, as far as I know.
25 Q. Talking about the year-end summaries; did

1 they pass those on to anyone else in the company,
2 if you know?
3 A. I don't know. I -- I would doubt it.
4 Q. Do you know if nicotine is carcinogenic?
5 A. I don't know.
6 Q. Do you know what carcinogenic means?
7 A. It's a chemical that can cause tumors.
8 Q. Have you ever read any research that would
9 indicate that nicotine is carcinogenic?
10 A. Wait a minute. I believe -- I've seen -- I
11 know I've seen the package insert for Nicorette
12 Gum, and it said -- I believe that says it was not
13 a carcinogen. Nicotine. We're not talking about
14 cigarettes, right, just nicotine, the compound?
15 Q. Nicotine.
16 A. I don't think it is. But, I'm -- again, I'm
17 not a toxicologist. I'm not an expert in that.
18 Q. Have you ever seen any studies that would
19 indicate that nicotine functions as a tumor
20 promoter?
21 A. I have -- no, I don't know. Never seen a
22 study.
23 Q. Do you know if RJR has done any research to
24 determine if nicotine promotes tumors?
25 A. I don't know.

1 Q. Who would know that, do you think?
 2 A. My guess would be Dr. Burger might know that.
 3 Q. Are there individuals out there that I could
 4 look up, interview, talk to, that espouse your
 5 view, that aren't employed by RJR, that nicotine is
 6 not addictive?
 7 A. I believe David Warburton.
 8 Q. Who's he?
 9 A. He's a psychologist in the UK.
 10 Q. Do you know him personally?
 11 A. Yes, I do.
 12 Q. How do you know him?
 13 A. I've seen him at scientific meetings.
 14 Q. Did you ever work with him?
 15 A. We've not published work together. He --
 16 I've worked with him and he's one of the editors on
 17 Psychopharmacology who often handles papers I
 18 submit there.
 19 Another name would be Ian Hindmarch,
 20 H-I-N-D-M-A-R-C-H, and he's also in the UK.
 21 Q. Do you know of any American scientists I
 22 could talk to that espouse your view that nicotine
 23 is not addictive, that don't work for RJR?
 24 A. Any American scientists?
 25 Q. The two --

1 A. I don't know that Dave Gilbert necessarily
 2 shares all our views, but I think he also has
 3 disagreements with the characterization like the
 4 '88 Surgeon General's report.
 5 Q. Who's he?
 6 A. He's a professor of psychology at Southern
 7 Illinois University. He's a former Reynolds
 8 employee, as I said this morning.
 9 Q. I'm sorry, he's also what?
 10 A. A former Reynolds employee, as I said this
 11 morning.
 12 Q. Did you work with him in an academic setting
 13 as well?
 14 A. We published a paper together. He had
 15 collected some EEG smoking data, and I applied new
 16 techniques from chaos theory to analyze it and be
 17 published.
 18 Q. Has Mr. Gilbert been retained, to your
 19 knowledge, to help RJR in tobacco litigation?
 20 A. In tobacco litigation? No. Not to my
 21 knowledge.
 22 Q. How about in anything else?
 23 A. I believe he's received research funding from
 24 us.
 25 Q. Do you know if he assisted RJR in its FDA

1 response?

2 A. I do not know.

3 Q. Do you know if Warburton and Hindmarch have
4 received RJR research funding?

5 A. It's possible. I don't know for certain.

6 Q. Do you know if Warburton or Hindmarch
7 received grants from other tobacco companies?

8 A. I don't know.

9 Q. Do you know if RJR has ever granted research
10 funds to a scientist in conjunction with another
11 tobacco manufacturer?

12 A. If they have, I'm not aware of it. You mean
13 getting a grant from RJR and somebody else
14 simultaneously?

15 Q. Yes.

16 A. Not that I know of.

17 Q. Do you know who at RJR I would talk to, to
18 figure out who they have ever given grant money to
19 for research? At least since you've been there.

20 A. The grants are all handled through our law
21 department.

22 Q. The research grants?

23 A. I mean, the actual -- you know, getting the
24 money to the person, administration.

25 Q. Well, isn't there a nonlegal component to

1 determining who receives a grant from RJR?

2 A. I would -- yeah, sure.

3 Q. Do you know what department that is?

4 A. There isn't a department and -- or never was
5 a department of grants.

6 Q. I'm just trying to understand, having never
7 worked for a private sector company, who I would
8 contact to figure out grant money going out. Is
9 that research and development? Is that marketing?
10 Is that finance?

11 A. It would be R & D, I would think. I'm not
12 aware of any money that's been given out by
13 marketing.

14 Q. When you publish an article -- let's say, for
15 example, your analysis of brain wave interaction
16 with nicotine. Let's say you were unemployed or
17 not employed by RJR, but RJR gave you all the money
18 to do that study. Would you, in your article,
19 somewhere that it got published, acknowledge RJR's
20 funding that study?

21 A. I believe I've seen people who got grant
22 money from us acknowledge the grant.

23 Q. But as a matter of scientific ethics, is that
24 required?

25 A. I don't know.

1 Q. Have you done studies that are funded by
2 somebody other than RJR?

3 A. Have I? Before I came to RJR, yes.

4 Q. Yes.

5 Did you acknowledge that they were
6 funded by a certain entity?

7 A. That was a while back, Counselor. I would
8 presume we did, yeah. They were from the Air Force
9 and from a medical foundation. And once you get
10 grant money, you want to keep the person -- you
11 know, you want to acknowledge their help, I guess.
12 So I guess I'm agreeing, it was just sort of a
13 courtesy. I don't know if it's a requirement or
14 anything like that.

15 Q. Does anyone else come to mind that would be
16 in your camp on the fact that nicotine is not
17 addictive, other than the three people you've
18 mentioned?

19 A. I can give you some possible names that I
20 think would disagree with -- may not agree with us
21 completely, but would disagree with parts of the
22 Surgeon General's report. I don't know for sure.

23 Q. Before we go on to that, are you saying that
24 Warburton, Hindmarch, and Gilbert will disagree
25 with the hypotheses that nicotine is addictive or

1 that it should be placed in the same category as
2 heroine and cocaine?

3 A. I would think Hindmarch and Warburton
4 disagree -- like us, disagree with the current
5 definition of addiction. And Dave Gilbert has
6 written a book about why he thinks people smoke,
7 and it seems to me, although it doesn't completely
8 agree with us, it also has some substantial
9 differences from the '88 Surgeon General's report.

10 Q. Does Gilbert's book -- first of all, do you
11 know if it was funded by RJR?

12 A. I don't know.

13 Q. Do you know if he attributes any aspect of
14 peoples' desire to smoke to the nicotine?

15 A. I think he would agree, as I agree, that
16 nicotine pharmacology plays a role in cigarette
17 smoking, along with other things. But I can't
18 speak for him. I mean, you asked for names, and
19 his name came to mind.

20 Q. Who are the other individuals you think might
21 espouse your views or similar views?

22 A. Verner Knott, perhaps; he's a Canadian. I
23 don't know.

24 Q. Do you think the -- have you ever read any of
25 the views of, say, the American Cancer Society?

1 A. I don't recall ever reading anything by the
2 American Cancer Society.

3 Q. How about the Heart Association?

4 A. No.

5 Q. You don't recall reading any of their views
6 on nicotine addiction?

7 A. No.

8 Q. Obviously the Surgeon General's views you
9 have reviewed, correct? At least the '88?

10 A. The '88 portion dealing with nicotine.
11 Again, the first author of that paper was Robinson,
12 so he -- he's more knowledgeable in that area than
13 I am. So, I mean, for real specific questions, I'd
14 refer you to him.

15 Q. How about, do you have familiarity with any
16 other tobacco manufacturer scientists who share
17 your view?

18 A. No. Like I said, I've never had contact with
19 anybody from any other tobacco company.

20 Q. Have Warburton and Hindmarch written on the
21 subject of nicotine addiction where I could read it
22 and say: Yeah, they -- they're in the same boat as
23 Dr. Pritchard?

24 A. David Warburton has, yes. I'm not sure if
25 Hindmarch has written.

1 Q. Where are they employed now?

2 A. Hindmarch is with some -- I don't know how to
3 describe it, and I can't remember the name of it.
4 It's a private -- I believe it's a private firm
5 that does contract work.

6 Q. Related to tobacco?

7 A. Related to pharmaceutical stuff and things
8 like smoking, caffeine. He's published studies on
9 alcohol.

10 Q. Has RJR ever contracted with his firm?

11 A. Contracted? I don't -- I don't think so, no.

12 Q. How about the grants he received? Did he
13 receive those while he was at that firm?

14 A. I'm not sure, first of all, that he's
15 received a grant from us. But if he has, I think
16 it was while he was there.

17 Q. Have you ever been on any sort of body or
18 board that will review applications for grants at
19 RJR?

20 A. There isn't a formal body. I've been given
21 grants, infrequently, to give an opinion on whether
22 they were worth funding.

23 Q. Do you know who asked you to give you those
24 opinions?

25 A. It was probably my manager.

1 Q. Who's that?

2 A. Or -- John Robinson. Or perhaps Don
3 deBethizy, his manager or his superior.

4 Q. Do you remember any specific grants that you
5 thought could yield useful results?

6 A. There was a grant to study Alzheimer's
7 disease using positron emission tomography from a
8 guy in Illinois named Parks. And I thought it was
9 a good study; but they didn't fund it, because our
10 extramural budget had been shrinking drastically
11 and pet studies are extremely expensive. And that
12 one study, as I understand it, would have eaten up
13 all the money we had left for that -- for that
14 year.

15 Q. Where is Parks now?

16 A. Springfield, Illinois?

17 Q. Has RJR ever utilized him as an expert?

18 A. Not to my knowledge.

19 Q. Do you know if RJR has ever consulted with
20 him?

21 MS. FEE: Object to the form.

22 BY MR. MAISTROS:

23 Q. With respect to any litigation.

24 A. His name was kind of mud at RJR. I -- I
25 would say no to that one.

1 Q. Why is that?

2 A. Because, when he didn't get the grant -- he
3 went to the same school that the then CEO of RJR
4 Nabisco went to and tried to call him in New York
5 and say, "This is your old school buddy," you know.
6 And he just passed it back to us and said, "You
7 guys make the decision." And we said we already
8 had, but we thought it was ...

9 Q. Earlier, when I asked you if RJR had ever
10 done any out-sourcing of its research, did you
11 understand my question to include RJR Nabisco as
12 well or just RJR?

13 A. I have no idea what Nabisco does. They make
14 Oreos.

15 MR. MAISTROS: We need to take a
16 short break.

17 MS. FEE: Okay.

18 VIDEOGRAPHER: We're going off the
19 record at 5:06 p.m. We're off the record.

20 (DISCUSSION OFF THE RECORD)

21 (DEPOSITION ADJOURNED AT 5:15 P.M.)

22

23

24

25

JURAT

I, Walter S. Pritchard, Ph.D., do hereby
certify that I have read the foregoing transcript
of my testimony, taken on Wednesday, May 28, 1997,
and have signed it subject to the following
changes:

PAGE	LINE	CORRECTION
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Walter S. Pritchard, Ph.D.

DATE:

Sworn and subscribed to before me on this _____
day of _____.

NOTARY PUBLIC _____

4 I, Linda N. Russell, a Notary Public in
5 and for the State of North Carolina, do hereby
6 certify that there came before me on Wednesday,
7 May 28, 1997, the person hereinbefore named, who
8 was by me duly sworn to testify to the truth and
9 nothing but the truth of his knowledge concerning
10 the matters in controversy in this cause; that the
11 witness was thereupon examined under oath, the
12 examination reduced to typewriting under my
13 direction, and the deposition is a true record of
14 the testimony given by the witness.

15 I further certify that I am neither
16 attorney or counsel for, nor related to or employed
17 by, any attorney or counsel employed by the parties
18 hereto or financially interested in the action.
19 IN WITNESS WHEREOF, I have hereto set my
20 hand and affixed my official notarial seal, this
21 the 3rd day of June 1997.

Linda N. Russell, Notary Public
 My Commission Expires 8/25/97

